

# Compensation Plan for Temporary Damages

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IND: Solar Transmission Sector Project  
(Banaskantha, Gujarat)

**DRAFT COMPENSATION PLAN FOR TEMPORARY DAMAGES  
(CPTD)**

*for*

**PROJECT 49214-002 (IND)**

**Solar Transmission Sector Project**

(Transmission System associated with Solar Power Parks at Banaskantha, Gujarat)

**Submitted by Power Grid Corporation of India Limited  
for the Asian Development Bank  
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## TABLE OF CONTENTS

SECTION	PARTICULARS	PAGE
	<b>EXECUTIVE SUMMARY</b>	<b>1-5</b>
<b>I</b>	<b>INTRODUCTION AND PROJECT DESCRIPTION</b>	<b>6-10</b>
1.1	Background	6
1.2	The Project	6
1.3	Scope and Objective of the Compensation Plan for Temporary Damages (CPTD)	6
1.4	Project Components	7
1.4.1	Transmission System For Solar Power Parks at Banaskantha, Gujarat	7
1.5	Scope and Limitation of the CPTD	8
1.6	Measures to Minimize Impact	8
1.7	Civil Works Scheduling	9
1.8	Route Selection and Study of Alternatives	9
1.9	POWERGRID approach towards Route selection	10
<b>II</b>	<b>PROJECT IMPACTS</b>	<b>11-16</b>
2.1	General	11
2.2	Impact Due to Substation/Bay Extension	12
2.3	Temporary Impacts Caused due to Transmission Lines (Right of Way)	12
2.3.1	Type and Use of Land within Corridor Right of Way	12
2.3.2	Affected Land area or Actual impact on Crop and others	13
2.3.3	Loss of Crops Caused due to Transmission Towers	13
2.3.4	Total loss of Crop Area (Corridor RoW and Towers)	13
2.3.5	Loss of Trees	14
2.3.6.	Loss of Other Assets (Small shed in Agriculture Fields)	14
2.4	Details on Affected Persons	14
2.5	Impact on Gender	15
2.6	Impact on Indigenous Peoples	15
2.7	Details of land to be traversed throughout the Right of Way (ROW): 46 Meter for 400 KV D/C Transmission Line	15
2.8	Summary Impacts	16
<b>III</b>	<b>SOCIO-ECONOMIC INFORMATION AND PROFILE</b>	<b>17-25</b>
3.1	General	17
3.2	Socio-Economic Profile of Gujarat	17
3.2.1	Land Use Pattern in Gujarat	17
3.2.2	Banaskantha	17
3.2.2.1	Physiography	18
3.2.2.2	Climate	18
3.2.2.3	Water Resources	19
3.2.2.4	Mineral Resources	20
3.2.2.5	Soil	20
3.2.2.6	Ecological Resources	20
3.2.2.7	Human and Economic Development	20
3.2.2.8	Crops	21
3.2.2.9	Existing Industrial Status	21
3.3	Other Features	21
3.3.1	Households Details	21

<b>SECTION</b>	<b>PARTICULARS</b>	<b>PAGE</b>
3.3.2	Demography	22
3.3.3	Male and Female Population	22
3.3.4	Scheduled Caste (SC) and Scheduled Tribe (ST) Population	22
3.3.5	Male and Female Population among the Scheduled Caste	23
3.3.6	Male and Female Population among the Scheduled Tribe	23
3.3.7	Literacy	23
3.3.8	Literacy among Male and Female	24
3.3.9	Illiteracy among Male and Female	24
3.3.10	Total Workers	24
3.3.11	Total Non-Workers (Male and Female)	25
<b>IV</b>	<b>INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION</b>	<b>26-28</b>
4.1	Consultations	26
4.2	Summary of Public Consultation held	27
4.3	Plan for further Consultation and Community Participation during Project Implementation	28
4.4	Information Disclosure	28
<b>V</b>	<b>GRIEVANCE REDRESS MECHANISMS</b>	<b>30</b>
<b>VI</b>	<b>LEGAL FRAMEWORK</b>	<b>32-37</b>
6.1	Overview	32
6.2	ADB's Safeguard Policy Statement(SPS), 2009	32
6.3	Compensation	32
6.4	Statutory Requirements	32
6.4.1	The Electricity Act, 2003, Part-VIII, Section 67 & 68	33
6.4.2	The Indian Telegraph Act, 1885, Part-III, Section 10	33
6.4.3	POWERGRID's ESPP, 2009	35
6.5	Basic Principles for the Project	35
6.6	Cut-off- Date	36
<b>VII</b>	<b>ENTITLEMENTS, ASSISTANCE AND BENEFITS</b>	<b>37-38</b>
7.1	Entitlements	37
7.2	Entitlement Matrix	37
7.3	Procedure of Tree/crop compensation	38
<b>VIII</b>	<b>COMPENSATION FOR STRUCTURE</b>	<b>42</b>
<b>IX</b>	<b>BUDGET</b>	<b>42</b>
<b>X</b>	<b>INSTITUTIONAL ARRANGEMENTS</b>	<b>44-46</b>
10.1	General	44
10.2	Various Levels	44
10.2.1	Corporate Level	44
10.2.2	Regional Level	44
10.2.3	Site Office	45
10.3	Staff Training on Environment and Social Issues	46
<b>XI</b>	<b>IMPLEMENTATION SCHEDULE</b>	<b>47</b>
<b>XII</b>	<b>MONITORING AND REPORTING</b>	<b>48</b>

## LIST OF TABLES

<b>TABLE</b>	<b>PARTICULAR</b>	<b>PAGE</b>
Table E-1	Entitlement Matrix	3
Table 1.1	Salient Features of the Project	8
Table 1.2	Details of Transmission Line	8
Table 2.1	Details on Substation and Bay Extension	12
Table 2.2	Type and Use of Land within Corridor of ROW (in Kms/Hectares)	12
Table 2.3	Estimation on Loss of Land for Crop Damage due to overhead Lines	13
Table 2.4	Loss of Crop Area estimated for Tower Footings	13
Table 2.5	Loss of Trees	14
Table 2.6	Loss of Other Assets	14
Table 2.7	Number of Affected Persons	14
Table 2.8	Summary Impacts	16
Table 3.1	Land Use Pattern	17
Table 3.2	Medium & Major Irrigation Schemes (000 hectares)	19
Table 3.3	Area irrigated by different sources (00 hectares)	19
Table 3.4	Industrial Status	21
Table 3.5	Details on Households	22
Table 3.6	Details on Total Population	22
Table 3.7	Details on Male/ Female Population	22
Table 3.8	Details on Percentage SC/ST	23
Table 3.9	Male and Female Population among SC	23
Table 3.10	Male and Female Population among ST	23
Table 3.11	Literate and Illiterate Population	24
Table 3.12	Male and Female Literacy	24
Table 3.13	Male and Female Illiteracy	24
Table 3.14	Details on Workers	25
Table 3.15	Details on Non Workers	25
Table 4.1	Details of Consultations	27
Table 4.2	Plan for Future Consultations	28
Table 7.1	Entitlement Matrix	37
Table 9.1	Budget	43
Table 10.1	Agencies Responsible for CPTD Implementation	45
Table 11.1	Tentative Implementation Schedule	47

## List of Figures

<b>FIGURE</b>	<b>PARTICULAR</b>	<b>PAGE</b>
Figure-1	PGCIL Network along with proposed project	7
Figure-2	Grievance Redress Mechanism	31
Figure-3	Tree/ Crop Compensation Process	41
Figure-4	Organizational Support Structure for Monitoring	48

## List of Annexures

<b>ANNEXURE</b>	<b>PARTICULAR</b>
Annexure-1	Evaluation of Alternate Route Alignment
Annexure-2	Location of Substation/Bay Extension
Annexure-3	Details of Public Consultation
Annexure-4	MoP Guidelines dated 15.10.15
Annexure-5	Govt. of Gujarat Order dated 23.06.16
Annexure-6	Action Plan for Safeguards
Annexure-7	Sample Performa for Crop Compensation

## LIST OF ABBREVIATIONS

AP	Affected Person
AHH	Agricultural Households
ASI	Archaeological Survey of India
ADB	Asian Development Bank
CEA	Central Electricity Authority
CTU	Central Transmission Utility
Ckt-Km	Circuit-kilometer
CP	Compensation Plan
CPTD	Compensation Plan for Temporary Damages
CAO	Construction Area Office
CSR	Corporate Social Responsibility
CSS	Country Safeguard System
DPSP	Directive Principles of State Policy
DC	District Collector
D/c	Double Circuit
EPS	Electric Power Survey
EMF	Electro Magnetic Field
ESMD	Environment and Social Management Department
E&S	Environmental & Social
E&SM	Environmental & Social Management
ESMC	Environmental & Social Management Cell
ESMT	Environmental & Social Management Team
ESPP	Environmental and Social Policy & Procedures
EMP	Environmental Management Plan
EHVAC	Extra High Voltage Alternating Current
GIS	Geographical Information System
GOI	Government of India
GRC	Grievance Redress Committee
Ha	Hectare
INRs	Indian National Rupees
IP	Indigenous People
ISTS	Inter State Transmission Scheme
IR	Involuntary Resettlement
kV	Kilo volt
Km	Kilometer
LA	Land Acquisition
LAA	Land Acquisition Act
MVA	Mega Volt Ampere
MW	Mega Watt
MM	Mille Meters
MoEF&CC	Ministry of Environment, Forests and Climate Change
MoP	Ministry of Power
M&E	Monitoring and Evaluation
NoC	No Objection Certificate
O&M	Operation and Maintenance
PESA	Panchayats (Extension to Scheduled Areas) Act, 1996
PTCC	Power and Telegraph Coordination Committee
PGCIL/ POWERGRID	Power Grid Corporation of India Limited

Pvt.	Private
RHQ	Regional Head Quarter
R&R	Resettlement and Rehabilitation
RP	Resettlement Plan
RoW	Right of Way
SPS	Safeguard Policy Statement of ADB, 2009
SCs	Scheduled Castes
STs	Scheduled Tribes
SQ.M.	Square Meters
SCM	Standing Committee Meeting
SEBs	State Electricity Boards
SH	State Highway
RFCTLARRA	The Right to Fair Compensation and Transparency in Land, Acquisition, Rehabilitation and Resettlement Act, 2013
USD	United States Dollar
WR	Western Region

## **GLOSSARY**

Block	An administrative sub-division within a district.
Panchayat	Elected Village Council/ the third tier of decentralized governance
Sarpanch	Elected head of the Gram Panchayat
Tehsil	A revenue sub-division, within a district
Zila/District	It is the first administrative division at the State level.

## EXECUTIVE SUMMARY

i. The Compensation Plan for Temporary Damages (CPTD) has been prepared for the Project which is proposed to be financed by the Asian Development Bank (ADB). The Project is categorized as 'B' for Involuntary Resettlement (IR) and "C" for Indigenous Peoples impact, as per the ADB safeguard category. CPTD is based on POWERGRID's *Environmental and Social Policy & Procedures*, 2009 (ESPP) and the Action Plan for Safeguards developed for use of the Country Safeguard System (CSS) under the ADB Safeguard Policy Statement 2009 (SPS). The Executing Agency (EA) is Power Grid Corporation of India Limited (PGCIL/POWERGRID) who will also be responsible for implementing the project. CPTD is guided by The Electricity Act 2003, The Indian Telegraph Act, 1885, ESPP and the Action Plan for Safeguards.

ii. The project components under the proposed ADB financing include construction of 95.00 kilometres (Kms) of 400 kV D/c Radhanesda- Banaskantha transmission line and 2 nos. of 400 kV line bays at 765/400/220 kV substation at Banaskantha which will be located in the Banaskantha district of Gujarat State. The CPTD has been prepared based on the preliminary route survey/ investigation. Construction of new bay extension (2 numbers) at 765/400/220 kV Banaskantha (PG) substation will be done within the existing substation and the land belongs to POWERGRID. Due diligence was undertaken and it confirms that additional bay extension will be done within the premises of the under construction substation and the area is fenced. Land is not subject to claims/disputes, and is not used by encroachers and squatters. The impacts are temporary in nature in terms of loss of crops. Additionally, loss of trees is also foreseen along with small structures associated with agricultural use. No physical displacement is foreseen. Temporary impacts are foreseen during the implementation and construction. Therefore, the CPTD remains as a draft, as final survey is not done yet and actual temporary impacts shall be known only during implementation which will be based on the detailed design and final survey once the construction contractor is mobilized for implementation. POWERGRID provides compensation for actual damages, which are temporary in nature. Exact location of tower is known only after detail survey/check survey. Check survey is done progressively during the construction of the transmission line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission lines in three stages i.e. after completion of foundation, tower erection and conductor stringing. The payment of compensation also paid in three instances, if there are different damages during above three activities. Assessment of damages at each stage and payment of compensation is a simultaneous and continuous activity. CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted to ADB by POWERGRID. The monitoring report will be disclosed on POWERGRID website.

iii. The project components under the above scheme include following transmission line and substation extension:

- 400 kV D/c Radhanesda {Gujarat Energy Transmission Corporation Limited (GETCO)}- Banaskantha (PG) line – 95.00 km;
- 2 nos. 400 kV line bays at Banaskantha (PG) substation.



iv. No acquisition/transfer of land is involved in transmission line and no physical displacement is foreseen in the project<sup>1</sup>. Impacts are temporary in nature in terms of loss of crops. Loss of trees is also foreseen. Preliminary investigation/survey has been carried out for transmission lines to estimate/arrive at for selection of one best feasible alignment route out of at least 3 alternative alignments studied, for detailed survey to be undertaken during execution of main contracts. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though Right of Way (RoW) is 46 meter for 400 kV lines but average affected width/corridor would be limited to 40 meter (maximum). All the estimations in the CPTD have been done on the basis of preliminary survey. Actual Impacted area for crops and others damage would be restricted to 40 meter maximum width in the corridor of agricultural land and private plantations which work to be 364 hectares and additional 51.40 ha of land adjoining the tower foundation is estimated for crop compensation due to placing of 257 tower footings. Therefore, the total land required for temporary loss in terms of loss of crops is estimated to be 415.40 hectares. Total number of trees to be affected is 5,800 out of which 5,600 are private trees and 200 are government trees. Private trees will be compensated in cash as per the entitlement matrix. The total number of affected persons is estimated to be 514.

v. Public participation and community consultations have been taken up as an integral part of the project's social and environmental assessment process. Public is informed about the project at every stage of execution. During survey also POWERGRID's site officials meet people and inform them about the routing of transmission line. During the construction, every individual, on whose land tower is erected and people affected by RoW, are consulted. There were altogether 11 consultations (1 public consultation meeting and 10 informal group meetings) were held in July'16 during preliminary survey/investigations of the entire routes of transmission lines. The process of such consultation is to be continued during project implementation and even during O&M stage. The draft/summary CPTD will be disclosed by the POWERGRID to the affected households and other stakeholders by placing it on website. POWERGRID site officials visit construction sites frequently during construction and meet with Affected Persons (APs) and discuss about norms and practices of damages and compensation to be paid for them. The executive summary of the CPTD and Entitlement Matrix will be made available to public through POWERGRID's construction offices in Hindi & English.

vi. GRM is an integral part of project implementation, operation and maintenance stage of the project. For handling grievance, Grievance Redress Committee (GRC) will be established at two places, one at the project level and another at corporate level. The GRCs shall include members from POWERGRID, Local Administration, Panchayat Members, Affected Persons representative and reputed persons from the society on nomination basis under the chairmanship of project head. The composition of GRC shall be disclosed in Panchayat offices and concerned district headquarter for wider coverage. In case of any complaint, GRC meeting shall be convened within 15 days. If project level GRC not able to take decision it may refer the complaint to corporate GRC for solution. GRC endeavor will be to pronounce its decision within 30-45 days of receiving grievances. In case complainant/appellant is not satisfied with the decision of project level GRC they can make an appeal to corporate GRC for review. The proposed mechanism does not impede access to the country's judicial or administrative remedies at any stage. Further, Grievance redressal is also in built tree/crop compensation in the process where affected persons are given a chance to place their grievances after issuance of notice by revenue officials on the basis of assessment of actual damages. Grievances

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<sup>1</sup> As per the present provision in the Electricity Act, 2003 read with relevant provisions of Indian Telegraph Act, 1885 all the damages (without acquisition of subject land) accrued to person while placing the tower and line are to be compensated.

received towards compensation are generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector also provides forum for raising the grievance towards any irregularity/complaint. POWERGRID will develop, improve, and maintain recording and tracking systems for GRM.

vii. The CPTD is based on ESPP and the Action Plan for Safeguards as well as on the Borrower's domestic policy instruments and laws. Being a transmission project, the relevant national laws applicable for this project are (i) The Electricity Act, 2003 and (ii) The Indian Telegraph Act, 1885 and POWERGRID's Environmental and Social Policy & Procedures(ESPP), 2009. The compensation principles adopted for the project shall comply with applicable laws and regulations of the Governments of India, ESPP and Action Plan for Safeguards..

viii. APs will be entitled for compensation for temporary damages to crops/trees/structures etc. as per the provisions of Entitlement Matrix given in **Table E.1**. Temporary damage will occur during construction of transmission lines for which compensation is paid as per relevant norms. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills. One time lump sum assistance will be provided to vulnerable households on recommendation of State Authority. POWERGRID will provide compensation to all APs including non-title holders as mentioned in the Entitlement Matrix.

**Table E-1: Entitlement Matrix**

<b>S N</b>	<b>TYPE OF ISSUE/ IMPACT</b>	<b>BENEFICIARY</b>	<b>ENTITLEMENT OPTIONS</b>
1.	Loss of crops and trees	Title Holder	Compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops. Timber will be retained by the owner.
2.	Loss of crops and trees	Tenant/ sharecropper/ leaseholder <sup>2</sup>	Only the cultivator <sup>3</sup> will get compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops.
3.	Other damages (if applicable)	All APs <sup>4</sup>	Replacement cost as assessed by the concerned authority.
4.	Loss of structure		
	a) House		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation at replacement cost (without deduction for salvaged material) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for

<sup>2</sup> This may include non-titled APs

<sup>3</sup> Powergrid will explain to AP tenant/sharecropper/leaseholder that the compensation will be provided to the cultivator and the sharing arrangements will have to be determined among themselves

<sup>4</sup> Titled and Non-titled

S N	TYPE OF ISSUE/ IMPACT	BENEFICIARY	ENTITLEMENT OPTIONS
			construction of house plus transition benefits as per category-5 below
	b) Shop/ Institutions		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation plus Rs. 10,000/- for construction of working shed/shop plus rehabilitation assistance equivalent to 1 year income plus transition benefits as per category-5 below
5.	Losses during transition of displaced persons/ establishments/ Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
6	Impacts on vulnerable APs	Vulnerable APs <sup>5</sup>	One time lumpsum assistance to vulnerable households on recommendation of State Authority. This will be paid over and above other assistance. Vulnerable APs to get priority under Corporate Social Responsibility (CSR) activities.
7	Land area below tower base	Owner	85% of land cost as decided by District Magistrate (#)
8	Land coming in corridor of width of Right of Way	Owner	15% of land cost as decided by District Magistrate (#)

**(#): As per MoP guidelines dated 15.10.15 and subsequent order issued by Govt of Gujarat on 23.06.16 regarding payment of compensation for damages in respect to RoW for transmission line**

ix. No physical displacement is envisaged in the proposed project. Major damages in transmission line are not envisaged due to flexibility of routing of transmission line. Transmission line construction is done mainly in the lean period to reduce damages to crops. Displacement of structures is normally not envisaged in the transmission line projects. However, whenever it is necessary, compensation for structures as decided by committee based on government norms and entitlement matrix of CPTD shall be provided. A notice for damage is issued to APs and the joint measurement by POWERGRID and APs is to be done and verified by revenue official for actual damages. Hence, compensation is paid parallelly with the construction activity of transmission line. The resettlement cost estimate for the project includes eligible compensation for loss of crops, trees, and support cost for implementation of CPTD, monitoring, other administrative cost etc. This is a tentative budget which may change during the original course of implementation. The total indicative cost is estimated to be INR 317.62 million equivalents to USD 4.96 million.

<sup>5</sup> Vulnerable APs include scheduled tribes/ scheduled caste/ households headed by women/ physically handicapped/ disabled families, etc. as certified by local authority.

x. The implementation and monitoring are critical activities shall be followed as per Implementation Chart/Schedule. Monitoring is a continuous process for POWERGRID projects at all the stages are it the site selection, construction or maintenance. The success of POWERGRID lies in its strong monitoring systems. Apart from the site managers reviewing the progress on daily basis regular project review meetings are held at least on monthly basis which is chaired by Executive Director of the region wherein apart from construction issues the environmental and social aspects of the projects are discussed and remedial measures taken wherever required. The exceptions of these meetings are submitted to the Directors and Chairman & Managing Director of the Corporation. The progress of various on-going projects is also informed to the Board of Directors. POWERGRID have a separate Environment and Social Management Department (ESMD) at Corporate Centre and Environment and Social Management Cell (ESMC) at RHQ to monitor environment and social issues. At site level, ESMT shall be responsible for implementation and monitoring of CPTD.

xi. Public consultation and internal monitoring will be continued in an intermittent basis for the entire duration of project. Monitoring will be the responsibility of POWERGRID. POWERGRID will disclose semi-annual monitoring reports on their safeguards implementation performance on its website and submit the reports to ADB for disclosing the same on the ADB website. POWERGRID will engage the services of an independent agency/external monitoring, if required.

## I. INTRODUCTION AND PROJECT DESCRIPTION

### 1.1. Background

1. In 2015, the Asian Development Bank (ADB) has approved a loan to the Government of India (GOI) to support continued investment, specifically for implementation of transmission systems associated with Solar Power Parks

2. Power Grid Corporation of India Limited (POWERGRID), the Central Transmission Utility (CTU) of India is engaged in power transmission with the mandate for planning, coordination, supervision and control over complete Inter-State Transmission System. As on 31st May 2016, POWERGRID has established about 1,30,020 circuit-kilometer (Ckt-km) of transmission lines at 765 kV, 400 kV, 220 kV and 132 kV extra high voltage alternating current (EHV AC), and 500 kV high voltage direct current (HVDC) levels and 210 substations (Substation) with transformation capacity of about 2,59,163 MVA. This transmission network, spread over length and breadth of India, is consistently maintained at an availability of over 99% through deployment of state-of-the-art Operation and Maintenance techniques at par with global standards. About 50 % of total power generated in India is wheeled through transmission network.

3. POWERGRID has been contributing significantly towards the development of India power sector by undertaking coordinated development of power transmission network along with effective and transparent operation of regional grids and through continuous innovations in technical and managerial fields.

### 1.2. The Project

4. The Project output is Transmission System for Solar Parks at Banaskantha in Gujarat. The Government of India (GoI) has requested a loan from ADB through ordinary capital resources. Implementing Agency is the POWERGRID. POWERGRID has already established a Project Management Unit (PMU), functioning under the guidance of technical committee of experts and assisted as required by implementation consultants.

### 1.3. Scope and Objective of the Compensation Plan for Temporary Damages (CPTD)

5. The Compensation Plan for Temporary Damages (CPTD) is guided by The Electricity Act 2003, The Indian Telegraph Act, 1885, POWERGRID's Environmental and Social Policy & Procedures, 2009 (ESPP) and Action Plan for Safeguards for the use of Country Safeguard System (CSS) under the ADB Safeguard Policy Statement 2009 (SPS).<sup>6</sup> The primary objective of the CPTD is to identify impacts and to plan measures to mitigate losses likely to be caused by the projects. The CPTD is based on the general findings of field visits, preliminary assessments and meetings with various project-affected persons in the project areas. The CPTD presents (i) introduction and project description (ii) project impacts (iii) socio-economic information and profile (iv) information disclosure, consultation and participation,(v) grievance redress mechanisms,(vi) legal framework (vii) entitlement, assistance and benefit (viii) compensation for structure (ix) budget (x) institutional arrangements (xi) implementation schedule (xii) monitoring and reporting.

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<sup>6</sup> Equivalent to the safeguard document required for ADB's environment category B projects. This CPTD has also fully met the requirements of ADB's Safeguard Policy Statement 2009.

## 1.4. Project Components

6. Specific details of project investments are as follows:

### 1.4.1. Transmission System for 700 MW Solar Power Parks at Banaskantha, Gujarat

7. Government of India has taken an initiative for development of Solar Power Parks (SPP) in various parts of the country. As part of above initiative, setting up of Ultra Mega Solar Power Park of 700 MW capacity has been envisaged by M/s Gujarat Power Corporation Limited (GPCL) at Radhanesda district Banaskantha in Gujarat. Ministry of Power (MoP) has assigned POWERGRID to implement transmission system for various solar parks including Banaskantha UMSP (700 MW) in Gujarat on compressed time schedule basis.

8. Ministry of Power (MOP) informed that evacuation system for various Solar Parks including Solar Power Parks in Banaskantha; Gujarat shall be developed by POWERGRID in compressed time schedule. The above transmission scheme was discussed and agreed in the 40<sup>th</sup> Standing Committee Meeting on Power System Planning of Western Region held on 01.06.16 and the same was ratified in the Regional Power Committee (RPC) meeting of Western region held on 20.01.16.

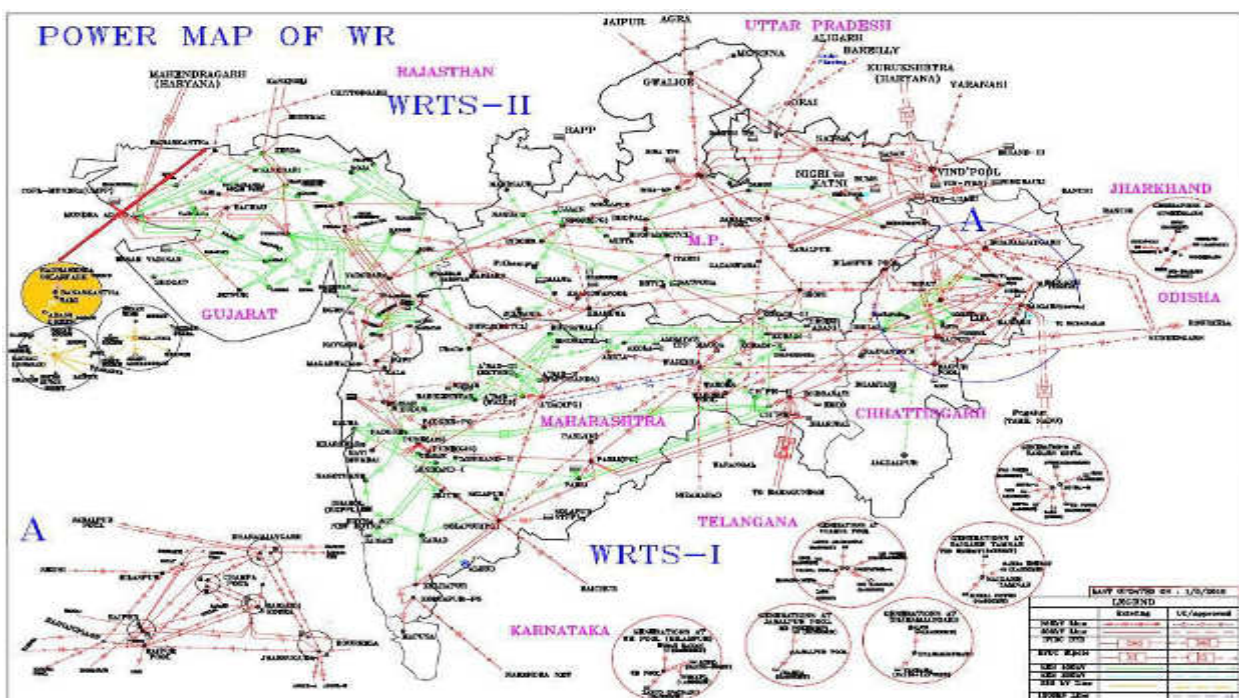
9. The project components under the above scheme include following transmission line and substation:

- 400 kV D/c Radhanesda (GETCO) - Banaskantha (PG) line – 95.00 km
- 2 nos. 400 kV line bays at Banaskantha (PG) substation

10. The project will have an associated facility 400/220 kV Radhanesda substation to be constructed by Gujarat Energy Transmission Corporation Limited (GETCO), the Gujarat State Transmission Utility (STU).

11. The map of existing interstate transmission network of PGCIL in Western Region indicating proposed project is shown in **Figure 1**.

**Figure1: PGCIL network along with proposed project.**



12. The project components under the proposed ADB financing include construction of 95.00 kilometres (Kms) of 400 kV transmission lines and 2 nos. of 400 kV line bays at 765/400/220kV substation at Banaskantha located in Banaskantha district in the state of Gujarat and will cover Salient Features of the Project is described in **Table 1.1** and detail od proposed line is described in **Table 1.2**.

**Table 1.1: Salient Features of the Project**

a)	Project	:	Transmission system for Ultra Mega Solar Power Park (700 MW) at Banaskantha, Gujarat.
b)	Location of the Project	:	Western Region
c)	Project Cost	:	Rs. <b>155.83 Crores</b> at December 2015 Price Level (including IDC of Rs. <b>4.85 Crores</b> )
d)	Commissioning schedule	:	Transmission System is proposed to be implemented within <b>16 months</b> from the date of investment approval.

**Table 1.2: Details of Transmission Line**

S. No	Name of the Lines	Length (in Kms)	Right of Way (Meters)	Number of Towers
1.	400 kV D/c Radhanesda (GETCO) - Banaskantha (PG) line	95.00	46	257

#### 1.5. Scope and Limitation of the CPTD

13. The CPTD has been prepared based on the preliminary route investigation/ survey. The project is categorized as 'B'<sup>7</sup> for Involuntary Resettlement (IR) and 'C' for indigenous people (IP), as per ADB's safeguard category. The impacts are temporary in nature in terms of loss of crops in the Right of Way. Additionally, loss of trees is foreseen. Temporary impacts are foreseen during the implementation and construction. Therefore, the CPTD remains as a draft, as final survey is not done yet and actual temporary impacts shall be known only during implementation which will be based on the detailed design and final survey once the construction contractor is mobilized for implementation. POWERGRID provides compensation for actual damages, which are temporary in nature. Exact location of tower is known only after detail survey/check survey. Check survey is done progressively during the construction of the transmission line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission lines in three stages i.e. after completion of foundation, tower erection and conductor stringing. The payment of compensation may also be paid in three instances, if there are different damages during above three activities. CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by POWERGRID.

#### 1.6. Measures to Minimize Impact

14. In keeping with POWERGRID's ESPP and the Action Plan for Safeguards, the route of

<sup>7</sup> A proposed project is classified as category B if it includes involuntary resettlement impacts that are not deemed significant which means less than 200 persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating). The level of detail and comprehensiveness of the resettlement plan are commensurate with the significance of the potential impacts and risks.

the transmission line has been so finalized to avoid or to minimize impacts towards temporary damages on crops/ trees/ structures if any coming in the Right of Way (RoW) during construction. Further field visits and public consultations helped in developing the measures towards minimizing negative social impacts, if any.

### **1.7. Civil Works Scheduling**

15. For construction of transmission line, POWERGRID follows the law of the land i.e. in exercise of the powers under the Indian Telegraph Act 1885, part 3, section 10 to 19 conferred under section 164 of the Electricity Act, 2003 through Gazette by India, extra ordinary dated 24th Dec. 2003, has the domain to place and maintain transmission lines under over along or across and posts in or upon, any immovable property. However, as per clause 10 (d) of same act stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Therefore, POWERGRID has developed a procedure which is designed to minimize impacts, during the preliminary survey/ investigation (for Screening & Scoping of the project with at least 3 alternative route alignments), thereafter during detailed survey (spot)/design followed by foundation work, tower erection and during the stringing of conductors.

#### ***a) Towers foundations and footings***

16. All towers foundations and towers footings are dug and laid, including transportation of material and land clearance, generally at the end of a crop season to avoid impacts on cultivations and need for compensation. After construction of transmission towers, farmers are allowed to continue agricultural activity below tower.

#### ***b) Towers erection***

17. Because the concrete needs time to dry and settle, all towers are erected normally three weeks later, after the end of the following crop season and before the following one.

#### ***c) Stringing***

18. Given the limited time needed for the stringing, the latter can be done right after the tower construction, before the following crop season.

19. For this reason no household is expected to be significantly affected. Thus, productive loss due to construction is negligible. However, due care shall be taken to avoid damages to crop/trees by taking up the construction activities during lean period or post-harvest season. As per the prevailing norms farming activity shall be allowed after the construction work is completed. All affected farmers will be compensated for all sorts of damages during construction as per the laid down procedure.

### **1.8. Route Selection and Study of Alternatives**

20. At the system planning stage itself one of the factors that govern the evolution of system is the possible infringement with the forest. Wherever such infringements are substantial, different alternative options are considered. The route/ site selection criteria followed by POWERGRID is detailed below:

21. While identifying the transmission system for a generation project or as a part of National



Power Grid, preliminary route selection is done by POWERGRID based on the Topo sheets of Survey of India and Forest Atlas (Govt. of India's Publication). During route alignment all possible efforts are made to avoid the forest area involvement completely or to keep it to the barest minimum, whenever it becomes unavoidable due to the geography of terrain or heavy cost involved in avoiding it. Evaluation of alternative route alignments of proposed line is provided in **Annexure-1**.

### **1.9. POWERGRID approach towards Route selection**

22. For selection of optimum route, the following points are taken into consideration:

- a) The route of the proposed transmission lines does not involve any human rehabilitation;
- b) Any monument of cultural or historical importance is not affected by the route of the transmission line;
- c) The proposed route of transmission line does not create any threat to the survival of any community with special reference to Tribal Community;
- d) The proposed route of transmission line does not affect any public utility services like playgrounds, schools, other establishments etc.;
- e) The line route does not pass through any sanctuaries, National Park etc.;
- f) The line route does not infringe with area of natural resources.

23. In order to achieve this, POWERGRID undertakes route selection for individual transmission lines in close consultation with representatives from the State Forest Department and the Department of Revenue. Although under National law POWERGRID has right of eminent domain for placing towers on Private land (Section 164 of the Electricity Act read with section-10 of the Indian Telegraph Act 1885) yet alternative alignments are considered keeping in mind the above-mentioned factors during site selection, with minor alterations often added to avoid environmentally sensitive areas and settlements at execution stage.

- As a rule, alignments are generally cited 10-15 km away from major towns, whenever possible, to account for future urban expansion;
- Similarly, forests are avoided to the extent possible, and when it is not possible, a route is selected in consultation with the local Divisional Forest Officer, that causes minimum damage to existing forest resources;
- Alignments are selected to avoid wetlands and unstable areas for both financial and environmental reasons.

24. In addition, care is also taken to avoid National parks and sanctuaries and any other forest area rich in wildlife. Keeping above in mind the route of proposed line has been so aligned that it takes care of above factors. As such different alternatives were studied with the help of Govt. published data like Forest atlas, Survey of India topo maps, satellite imageries etc. to arrive at most optimum sections of the route which can be taken up for detailed survey and assessment of environmental & social impacts for their proper management.

## II. PROJECT IMPACTS

### 2.1. General

25. The project does not require any private land acquisition for construction of transmission lines under the proposed ADB financing components. Therefore, no physical displacement is foreseen in the project. Impacts are temporary in nature in terms of loss of crops in the Right of Way. Additionally, loss of trees is also foreseen. Preliminary investigation/survey has been carried out for transmission line to estimate/arrive at for selection of one best feasible alignment route out of at least 3 alternative alignments studied, for detailed survey to be undertaken during execution of main contracts. Therefore, preparation of Compensation Plan Temporary Damages (CPTD) for entire transmission system has been done after the preliminary investigation/survey. All the assessments in the draft CPTD are based on preliminary survey and estimations. During Preliminary survey/ investigation carried out in entire route, the details of land use have been gathered to have an idea about the temporary damages might occur during construction of the transmission line. The corridor of width (-Right of Way) required for 400 KV D/C transmission line is 46 meter. The temporary impacts on loss of crops and trees are caused due to transmission line and placing of transmission towers.

26. Soil & Surface Geology: In plain areas impact on soil & geology will be almost negligible as the excavated pit material is stacked properly and back filled as well as used for resurfacing the area. On hill slopes where soil is disturbed will be prone to erosion is suitably protected by revetment, breast walls, proper drainage is done. Besides extensive leg /chimney extension shall be used to avoid benching or cutting of slopes to minimize the impact on slope stability.

27. Agriculture areas: The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction area ranges from 0.45 to 0.70 m. a small square area of about 0.20 sq.m. to 0.49 sq.m. depending on the type of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 400KV D/c transmission tower is approximately 1 sq.m. of land. Due diligence confirms that land is either agricultural or barren, and current land use is not altered and resumed after construction.

28. Crops: Construction of line in crop season is avoided as far as possible. In case when installation of towers impacts on agricultural activity, detailed assessment/survey is conducted looking at existing crops, general crop patterns, seasonal particulars, nature and extent of yield. This data is compiled and analysed to study the extent and nature of impact. Format for crop compensation is similar to that of tree compensation. The compensation is in terms of yield/hectare and rate/quantity for prevailing crops in the area. Based on this, total compensation is calculated in consultation with revenue authorities. Compensation is paid to the owners and their acknowledgement obtained.

29. Trees: Construction of line in fruit bearing season is avoided as far as possible. Tree compensation is calculated on basis of tree enumeration, tree species and an estimate of the yield. In case of fruit bearing trees compensation will be calculated on the basis of 8 years yield (assessed by revenue/horticulture department). Market rates of compensation are assessed by the relevant government authorities. The total estimate is submitted for approval of the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ Sarpanch and respective acknowledgements are obtained.

30. Other Damages: Like bunds, water bodies, fish ponds, approach paths, drainage and

irrigation canals etc. are at best avoided. However, if damaged compensation as per practice, the State Govt. Revenue Department assess the cost of damage. The total estimate is submitted for approval to the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ Sarpanch and respective acknowledgements are obtained and POWERGRID pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms.

## 2.2. Impact due to Substation Line Bays Extension

31. The Project components also consist of construction of new bays (2 numbers) at 765/400/220 kV Banaskantha (PG) substation. Bay extensions will be done within the existing substation and the land belongs to POWERGRID. Due diligence was undertaken and it confirms that additional bays extension will be done within the premises of the under construction substation and the area is fenced. Land is not subject to claims/disputes, and is not used by encroachers and squatters. The location of substation is enclosed as **Annexure-2**. Details of substation bay extension under ADB funding are given in **Table 2.1**:

**Table 2.1: Details on Substation Bay Extension**

Project Components	Permanent Impact (Land Acquisition)	Temporary Impact on loss of crops	Impact on Loss of Trees	Remarks
2 nos. 400 kV line bays at Banaskantha (PG) substation	Nil	Nil	Nil	POWERGRID land

## 2.3. Temporary Impacts Caused due to Transmission Line (Right of Way)

### 2.3.1. Type and Use of Land within Corridor Right of Way

32. The line corridor will pass through mixed land uses which are generally agricultural land, private plantation, forest, reverine feature and barren unused land etc. The calculations are based on preliminary investigation/ survey carried out along the route of transmission lines and is based on the total line length of the line and its right of way<sup>8</sup>. The total line length is 95.00 kilometres which will impact an estimated of 437.00 hectares (ha) of land. This includes 85.00 kms of line passing through agricultural land (391.00 ha. of agricultural land), 6.00 kms of private plantation (27.60 ha of private plantation land) and 4 kms of barren/unused land (18.4 ha of barren/unused land). A brief description about the type and use of land in the corridor is given in **Table 2.2**.

**Table 2.2 Type and Use of Land within Corridor of ROW (in Kms/Hectares)**

Name of the Lines	RoW Width (in meter)	Agricultural land	Private Plantation	Forest	Reverine feature	Barren/unused	Total
400 kV D/c Radhanesda-Banaskantha	46	85.00 kms/ (391.00 ha)	6.00 kms/ (27.60 ha.)	0 kms	0 kms	4.0 kms/ (18.4 ha)	95.00 kms/ (437.00 ha)

*Source: Preliminary Survey*

33. The total land as calculated does not necessarily be considered for crop compensation.

<sup>8</sup> Total Line Length (kilometers) X Right of Way (meters)X1000/ 10,000= Area in Hectare

The actual land for crop compensation is described in following paragraphs.

### 2.3.2. Affected Land area or Actual impact on Crop and others

34. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though ROW is 46 Meter for 400kV lines, but average affected width/corridor would be limited to 40 meter (maximum). As per POWERGRID's strategy and practices all out efforts are made to reduce the damages to crops and to minimize the impact whatsoever. One of the reasons is POWERGRID schedules its construction activities in lean season or post harvest periods. Previous projects executions show only 45% crop damages on an average even within the area of width 40 meter. For the purpose of calculation of loss of crops and others (impact), average 40 meter width has been considered for the lines though on higher side. The damages is not done in complete RoW (46 m for 400 kV D/c), it is mostly restricted to tip to tip of the conductor (approximately 20 meter for 400 kV). Calculation is done on higher side i.e. 40 m considering other damages. It revealed that the most of the affected land may be used within 40 meter wide is agricultural land where crops/ trees exist. Actual impacted area for crops and others damage would be restricted to 40 meter maximum width in the corridor of agricultural land and private plantations which work to be 415.40 Ha. [(91.0 Km x 40 meter =364 Ha.)+ 51.4 Ha. (for tower foundation)]. Brief description about the type of land in 40 meter corridor (width) of above Transmission Line is given in **Table 2.3**:

**Table 2.3: Estimation on Loss of Land for Crop Damage due to Overhead Lines**

Name of the Line	Width Considered for Estimation of Loss of Crops and other impacts (Meter)	Total Agricultural Land (kms)	Total Private Plantation (kms)	Total Line Length Considered for Crop Compensation (kms)	Total Land Area considered for Crop Compensation with 40 meter width (Hectare)
400 kV D/c Radhanesda-Banaskantha	40	85.00	6.00	91.00	364.00

Source: Preliminary Survey

### 2.3.3. Loss of Crops Caused due to Transmission Towers.

35. During tower foundation, additional area adjoining the actual foundation area will be affected. For estimation purpose, additional area of 2,000 sq.m. [(60mX60m)-(40mX40m)] per tower has been considered. Additionally, 51.4 ha of land are estimated for crop compensation due to placing of 257 tower footings. Details are given in **Table 2.4**:

**Table 2.4: Loss of Crop Area estimated for Tower Footings**

Name of the Line	No of Towers	Area Affected (Ha)
400 kV D/c Radhanesda- Banaskantha line	257	51.4

Source: Preliminary Survey

### 2.3.4. Total loss of Crop Area (Corridor RoW and Towers)

36. Based on the above estimation, the total land considered for crop compensation for transmission line corridor and tower foundation is [91.0 Km x 40 meter =364.00 Ha + 51.40 Ha for tower foundation]= **415.40 hectares**.. As the assets of any sorts will not be acquired but for

temporary damage to crops/trees or any other structures, adequate compensation as per norms shall be paid to all affected APs. During construction, only temporary damages will occur for which the compensation shall be paid as per relevant rules. For total towers (257 nos), temporary damages during tower foundation shall be 51.4 ha. After construction, the total land loss estimated to be about 0.0257 ha which is 0.027% of the temporary damage area and the land owners have balance land in other areas also. Thus productive loss due to construction is negligible. However, Compensation plan for APs towards temporary damages shall be required which is a part of CPTD.

### 2.3.5. Loss of Trees

37. Total numbers of trees likely to be affected are 5,800 out of which 5,600 are private trees and 200 are Govt.trees. Private trees will be compensated as per the entitlement matrix. Details on number of trees for each line are given in **Table 2.5**:

**Table 2.5: Loss of Trees**

Name of Line	Trees in Private Area (Numbers)	Trees in Govt. Area (Numbers)	Total Trees (Numbers)
400 kV D/c Radhanesda-Banaskantha	5600	200	5800

Source: Preliminary Survey

### 2.3.6. Loss of Other Assets (Small Shed in Agriculture Fields)

38. It is found during the preliminary survey that approximately 15 numbers of small structures exist along the right of way. These are small sheds/small storage which are associated with the agricultural fields. People do not use these small structures/sheds for residential purpose and they use it as storage of agricultural purpose. These will be compensated in cash. Details on impacts on small structures are given in **Table 2.6**

**Table 2.6: Loss of Other Assets**

Name of Line	Total Number of Cattle sheds/huts
400 kV D/c Radhanesda- Banaskantha line	15

Source: Preliminary Survey

### 2.4. Details on Affected Persons

39. It is estimated that as per preliminary survey/ investigation, total number of affected persons which may be impacted temporarily will be approximately 514. This is a preliminary assessment. Details are given in **Table 2.7**. The number of APs in the table refers to the most conservative option. POWERGRID will schedule civil works in such a way to minimize impacts and substantially reduce the damages to crops and therefore the number of affected persons and Agricultural Households (AHH).

**Table 2.7: Number of Affected Persons**

Name of Line	Length in Kms	Total APs
400 kV D/c Radhanesda- Banaskantha line	95.00	514

Source: Preliminary Survey

## 2.5. Impact on Gender

40. The predominant activity of women is household work, where they spend most of their time. Additionally, women are also involved in agriculture activity. Women will not be affected negatively due to the project. Provision for equal wages and health and safety facilities during the construction will be ensured by the executing agency. As the damages are temporary in nature, which are compensated at market rate and no loss of any asset is involved, hence no negative impact on APs is foreseen. Moreover, it is envisaged that any parity in payment for equal amount of damages at same locations will lead to tension in social fabric of the locality.

## 2.6. Impact on Indigenous Peoples

41. Government of India, under Article 342 of the Constitution, considers the following characteristics to define indigenous peoples [Scheduled Tribes (ST)]:

- (i) tribes' primitive traits;
- (ii) distinctive culture;
- (iii) shyness with the public at large;
- (iv) geographical isolation; and
- (v) social and economic backwardness before notifying them as a Scheduled Tribe.

42. Essentially, indigenous people have a social and cultural identity distinct from the 'mainstream' society that makes them vulnerable to being overlooked or marginalized in the development processes. STs, who have no modern means of subsistence, with distinctive culture and are characterized by socio-economic backwardness, could be identified as Indigenous Peoples. Indigenous people are also characterized by cultural continuity. Constitution of India identifies schedule areas which are predominately inhabited by such people. The proposed transmission line is located in Gujarat which has no schedule tribe as such. Hence, no indigenous population is envisaged in the project area.

43. Government of India has notified scheduled area to safeguard the interests of indigenous people. Constitution bestows special power to governor, for validating laws, to be implemented in scheduled V areas. Similarly, autonomous councils have been constituted to safeguard interests of indigenous people in Scheduled VI areas. Laws such as Panchayats (Extension to Scheduled Areas) (PESA) Act, 1996, extends the vision of self-governance (as enshrined in Directive Principles of State Policy (DPSP) given in constitution), to the schedule V areas. Several other safeguards are in place to counter the vulnerability imposed upon indigenous people because of their origin and socio economic background. The line is not passing through any notified scheduled areas of Gujarat. As the proposed project is totally confined in the state of Gujarat, so it won't have any impact on indigenous people. No laws / policies applicable for indigenous people shall be applicable in project area.

## 2.7. Details of land to be traversed throughout the Right of Way (ROW): 46 Meter for Radhanesda- Banaskantha 400 KV D/C Transmission Line

Land Use	Type	Total Distance	
		Km	%
Cultivation	Agriculture	85	89.5
Private Plantation		6	6.3
Forest	Sparse	-	-

	Moderate	-	-
	Moderately dense	-	-
	Dense	-	-
	Road Side Plantation	-	-
Shrubs		-	-
Barren Land		4	4.2
Riverine features		-	-
<b>Total</b>		<b>95.00</b>	<b>100</b>

*Source: Preliminary Survey*

44. From the above it may be observed that out of total 95.00 kms line, 85.00 kms is cultivated land which is close to 89.5%, rest is private plantation, barren in nature. Tree/crops compensation will have a major role to play for the implementation of the subprojects. This has to be dealt with methodically, sincerely & meticulously in consultation with temporary APs (preferably public consultation at least in every 20-50 Km of the stretch along with Govt./Revenue officials and with proper documentation.

## 2.8. Summary Impacts

45. Preliminary investigation/survey carried out while arriving at nearly final alignment out of at least 3 alternative alignments for taking up detailed survey reveals the following summary impacts:

- 400 kV D/c Radhanesda- Banaskantha line involves 415.40 Ha of land for crop loss with about 5,800 trees. Temporary Affected Persons (APs) are about 514 nos.

46. Based on the preliminary assessment, summary impacts on loss of crops, trees, other structures and number of APs are given in **Table 2.8**.

**Table 2.8: Summary Impacts**

Particulars	Details
Length in Kms	95.00
Number of Towers	257
Area under RoW (ha)	437.00
Total APs	514
Affected Structures (Small Sheds for agricultural purpose)	15
Area of Temporary Damages (Ha) for crop compensation	415.40
Trees in Private Area (Nos.)	5,600
Trees in Govt Area (Nos.)	200
Total Trees	5,800

*Source: Preliminary Survey*

### III. SOCIOECONOMIC INFORMATION AND PROFILE

#### 3.1. General

47. The socio-economic profile of the project areas is based on general information collected from various secondary sources. As the assets of any sorts will not be acquired but for temporary damage to crops/trees or any other structures adequate compensation as per norms shall be paid to all APs. This chapter provides broad socio-economic profile in terms of demography, literacy, employment and other infrastructure etc. in the State of Gujarat and Banaskantha district through which the lines will traverse. Following section briefly discuss socio-economic profile.

#### 3.2. Socio-Economic Profile of Gujarat

##### 3.2.1. Land Use Pattern in Gujarat

48. Gujarat is situated on the western coast of the country having the longest coastline. It lies between 20°07'N - 24°43' N latitude and 68°10'E - 74°29' E longitude. The geographical area of the state is 196,022 sq. km. which constitutes 5.96 % of the country's geographical area. The state is surrounded by Pakistan & Rajasthan in North East, by Madhya Pradesh in the East, by Maharashtra and the Union territories of Diu, Daman, Dadra and Nagar Haveli in the south. The Arabian Sea is present in the West and South West border of the state.

49. Physiographically the state can be divided into three distinct regions (i) the peninsula (ii) Kuchchh (iii) the mainland, extending from the Rann of Kuchchh and the Aravalli hills to the river Damanganga and consists of plains with alluvial soil. The general land use pattern of the State is given in **Table 3.1**.

**Table-3.1: Land Use Pattern**

Land use	Area in ' 000 ha	Percentage
Total Geographical area	19,602	
Reporting Area for land utilization	19,069	100
Forests	1,834	9.62
Not available for cultivation	3,723	19.52
Permanent Pasture & other Grazing lands	851	4.46
Land under misc. tree crops & groves	4	0.02
Culturable waste land	1,960	10.28
Fallow land other than current fallows	16	0.08
Current fallows	379	1.99
Net area Sown	10,302	54.02

*Source: Land use statistics, Directorate of Economics and Statistics, 2012-2013*

##### 3.2.2 Banaskantha

50. The proposed project involves only one district of Gujarat which is Banaskantha. Banaskantha district is situated in North-West part of Gujarat and lies between 23°02" and 24°45" North Latitudes and 71°21" and 73°02" East Longitudes. The district is surrounded by Rajasthan in the North, by Patan and Mehsana in the South, by Kutch district in the West and by Sabarkantha district in the East. The geographical area of the district is 12,703 sq. km..



### 3.2.2.1. Physiography

51. The district can be divided in three main parts – the hilly- mountainous region having high relief and rugged topography covering parts of Dhanera, Palanpur, Vadgaon and entire Danta taluka in the east, the piedmont zone all along the periphery of hilly area, and west and southwest of River Banas the area is flat plain with occasional undulations given rise to by sand dunes and mounds in the west. The western extension of this plain merges into the marshy area of Rann of Kutch.

52. Geomorphologically the district can be divided into six sub micro regions on the basis of physiography, climate, geology, soils and natural vegetation.

a) **Vav Sandy Plain:** It is mostly sandy plain with an altitude of 100 m above mean sea level. There are a few small channels, which merge into little Rann of Katchchh. Geologically area is composed of Alluvium, blown sand etc.

b) **Sandy Plain:** The region mainly extends over the north and north western parts of the district bounded by the state of Rajasthan in the north, Banas valley in the east and south and Vav sandy plain in west. The region has the sloppy gradient, towards the west in which the river Sukal flows. Geologically area is composed of Alluvium, blown sand etc.

c) **Banas Vally:** This region extends over the central and south-western part of the district, It is mainly formed by the Banas River which flows southwesterly direction and ultimately merges into Rann of Katchchh. Northern part of this region is high in elevation than the south and western portions. Geologically area is composed predominantly of Alluvium, blown sand etc.

d) **Banskantha Aravalli Range:** The region spreads over the eastern part of Banaskantha district, occupying Danta and part of Palanpur and small area of Vadgaon talukas. It is bounded by the state of Rajasthan from north, Banas Valley from west, Mehsana district from south and Sabarkantha district from east. This region is highly elevated ranging between 100 and 300 m above mean sea level. Saraswati River is the main river of the region. Geologically area is composed Alluvium, blown sand etc

e) **Jasor Chhotila Hills:** The region lies in Dhanera and Palanpur taluks and is enclosed by the state of Rajasthan from three sides while Banaskantha Aravalli range makes its limit in the south. It is actually disrupted part of Aravalli range by the Banas valley. It is an undulating terrain with an elevation of 300 m above mean sea level and is covered by forest. Geologically this region is mainly composed of Eranpura granite formation.

f) **Umardasi – Sarawati Plain:** This region mainly extends over the south – eastern part of Banskantha district covering the taluks of Palanpur and Vadgaon. It is bounded by Banas valley in the west and north, Banaskantha Aravalli range in the east and Mehsana district in the south. This region is formed by the Umardasi and Saraswati River and having an elevation of 100 m above mean sea level. Geologically area is composed of alluvium, blown sand etc

### 3.2.2.2. Climate

53. The climate of Banaskantha district is characterized by a hot summer and dryness in the non rainy seasons. The cold season extends from December to February and is followed by the

hot season from March to May. The monsoon season is from June to September. October and November form the post monsoon season. The average annual rainfall is around 614 mm.

### 3.2.2.3. Water Resources

54. The surface water resources of the district are very limited. Groundwater is the main source of irrigation. There are no perennial rivers flowing through the district. Important irrigation schemes (**Table 3.2**) of the district are as follows:

**Table 3.2: Medium & Major Irrigation Schemes (000 hectares)**

Sr. No	Name of scheme	Ultimate Irrigation Potential	Potential created up to March '06	Balance Irrigation Potential
1	Mukteshvar Irri. Project	6.186	6.186	-
2	Sipu Reservoir Project	16.00	16.00	-
3	Hadmatiya Irri. Scheme	0.792	0.792	-
4	Dantiwada	44.52	44.52	-

*Source: Irrigation Department, Palanpur 2013 (Reproduced: Gol, Ministry of Water Resources Central Ground Water Board, Ground Water Scenario Banaskantha District, Gujarat, 2013)*

#### 1. Irrigation - Area Irrigated by different Sources

55. The area irrigated by different sources in the district is presented in **Table- 3.3**, which indicate that tubewells are the main source of irrigation in the district.

**Table-3.3: Area irrigated by different sources (00 hectares)**

Sl.	Source	Area irrigated	Sl.	Source	Area irrigated
1	Govt.Canals	1950.36	6	Tubewells(Electrified)	240
2	Tanks	237	7	River Lift	
3	Wells		8	Other (Adbsnds Lift)	290
4	Wells (Electrified)	212	9	Net Irrigated Area	466
5	Tubewells		10	Gross Irrigated Area	474

*Source: Irrigation Department Palanpur 2013 (Reproduced: Gol. Ministry of Water Resources Central Ground Water Board, Ground Water Scenario Banaskantha District, Gujarat, 2013)*

#### 2. Ground Water Scenario

56. **Hydrogeology** - Precambrian hard rocks, semi-consolidated Mesozoic and tertiary formations and unconsolidated quaternary alluvial deposits form multi layer aquifer system in the district. Groundwater occurs both under phreatic and confined conditions, however its development is restricted depending upon the aquifer geometry and yield characteristic of individual aquifer and/or ground water quality of the formation water.

57. **Ground water in fissured formation (Hard rock)**: The north-eastern part of the district is mainly occupied by meta-sediments and Post Delhi intrusives. The occurrence and movement of ground water is governed by secondary porosity i.e. thickness and extent of weathering and size & interconnections of fractures/joints.

58. These formations generally do not form very good aquifer system. The depth of dugwells ranges from 15-30 mbgl and of borewells ranges from 100-200 mbgl. Depth to water level in the dug wells varies from 5 -14 mbgl and in borewells from 15 to 60 mbgl. The successful borewells drilled so far, yielded in the range of 30- 1036m<sup>3</sup> /day with an average yield of 240m<sup>3</sup>/day.

59. There is a strong evidence indicating presence of potential fracture zones at the depth below 100 m, however contribution of yield to the total yield from these zones is about 15-30% in general except at suitably identified locations i.e. Karanpur in Danta taluka where contribution of yield from potential deeper zones is more than 75%.

#### **3.2.2.4. Mineral Resources**

60. The district is rich in respect of minerals resources. The important minerals in the district are like marble Block, Rubble, Lime stone, Granite Block, Granit rubble, court zite ordinary sand etc.

#### **3.2.2.5. Soil**

61. In Banaskantha district major part of the soils are sandy in nature. In general the soils are poor to medium in fertility and water retention capacity. Most soils have good aeration, porosity and permeability. The hydraulic conductivity of the soils ranges from as low as 0 for saline and alkali soils in the western part to more than 7cm/hr for calcareous sandy soils in the north and west. Soils of the district fall in five broad categories as below.

- I) **Saline and alkali soils:** These are typically deep, grey calcareous sandy clay loams of low permeability.
- II) **Calcareous sandy loams:** These are generally Deep, light grey or brown sandy loams of moderate to good permeability and drainage.
- III) **Calcareous sandy soils:** These are mostly pale yellow and brown sands & loamy sands of good depth and high permeability.
- IV) **Non calcic brown soils:** These are characterised by pale brown to brown deep loamy sands and sandy loams of adequate to good permeability.
- V) **Non calcic red brown soils:** These are of mixed colluvial and alluvial derivations from rocks of the Aravali system. Mostly deep loamy sands to sandy loams with adequate to good hydraulic conductivity.

#### **3.2.2.6. Ecological Resources**

62. The recorded forest area of the district is 840 square km which is 8.52% of the district's geographical area. There are no major forest products. Minor forest products like, Tendu leaves, Mahuwa flowers, Bamboo, Neem seeds, Honey and Herbal medicines etc. are found in the district.

#### **3.2.2.7. Human and Economic Development**

63. As per 2011 census, the population of Banaskantha district is 31,20,506, which constitutes 5.16% of Gujarat's population. Sex ratio of the district is 938 females for 1000

males. Average literacy of the district stands at 65.32%, while male and female literacy figures are 78.15% and 51.75% respectively. The district has a population density of around 290 persons per square kilometer.

### 3.2.2.8. Crops

64. Banaskantha contributes significantly to Agricultural production in the state. It is the largest producer of potatoes and one of the leading producers of Isabgul (*Psyllium husk*) in the country. Bajri, Maize, Tobacco, Castor oil and Jowar are the major crops of the district. Apart from Isabgul, other spices like Fennel, Fenugreek and Cumin are also produced in the district.

### 3.2.2.9. Existing Industrial Status

65. Agro & Food processing, Tourism, textile and mineral based industries (ceramics) form the major industrial base of the district. The district ranks 1st in the production of vegetable oil in the state. A significant number of Medium & Large Scale Industries (MSI & LSI) in Banaskantha district are engaged in the production of granite, marble blocks, cement and Food Processing. Some of the prominent names are Shreeji Granite, Tirupati Marbles Ltd, Shri Ram Cement, Gujarat Agro Industries, Royal proteins etc. There are seven small-scale industries (SSI) clusters in the state; 3 in Palanpur taluka, 2 in Vadgam taluka and one each in Danta and Deesa talukas. The textile clusters located in Palanpur and Vadgam talukas together consists of 397 units. The diamond processing cluster located in Palanpur and Deesa has 104 units, while 48 units are present in ceramic cluster present at Danta. Details on the industrial status of Jodhpur district is given in **Table 3.4**.

**Table 3.4: Industrial Status**

S.No.	Head	Unit	Particulars
1	Registered Industrial Unit	Nos.	524
2	Total Industrial Unit	Nos.	-
3	Registered Medium and Large Unit	Nos.	15
4	Estimated Avg. No. of Daily Worker Employed in Small Scale Industries	No.	No data-
5	Employment in Large and Medium Industries	No.	1200
6	No. of Industrial Area		06
7	Turnover of Small Scale Industries		NA
8	Turnover of Medium and Large Scale Industries		NA

Source: *Brief Industrial Profile of Banaskantha District, Government of India, Ministry of Micro Small and Medium Enterprises, 2013*

### 3.3. Other Features

66. Other features related to households, demography, literacy, working population etc are described below.

#### 3.3.1. Households Details

67. Total Households in Gujarat stands at 12,248,428 of which 6,773,558 (55%) households belong to rural area and 5,474,870 (45%) households belong to urban area. Banaskantha district has a total of 560,411 households of which 478,438 (85%) households belong to rural

area and 81,973 (15%) households belong to urban area. Details are given in **Table 3.5**.

**Table 3.5: Details on Households**

Name/Particulars	Total households	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Gujarat	12,248,428	6,773,558	5,474,870	55	45
Banaskantha	560,411	478,438	81,973	85	15

Source: Census of India, 2011

### 3.3.2. Demography

68. Total population in Gujarat stands at 60,439,692 of which 34,694,609 (57%) population belong to rural area and 25,745,083 (43%) population belong to urban area. Banaskantha district has a total of 3,120,506 populations of which 2,705,591 (87%) populations belong to rural area and 414,915 (13%) populations belong to urban area. Details are given in **Table 3.6**.

**Table 3.6: Details on Total Population**

Name/Particulars	Total Population	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Gujarat	60,439,692	34,694,609	25,745,083	57	43
Banaskantha	3,120,506	2,705,591	414,915	87	13

Source: Census of India, 2011

### 3.3.3. Male and Female Population

69. Total population in Gujarat stands at 60,439,692 of which male population stands at 31,491,260 (52%) and female population stands at 28,948,432 (48%). Total population in Banaskantha stands at 3,120,506 of which male population stands at 1,610,379 (52%) and female population stands at 1,510,127 (48%) Details are given in **Table 3.7**.

**Table 3.7: Details on Male/ Female Population**

Name /Particulars	Total Population	Total Male	Total Female	Percentage (Male)	Percentage (Female)	Sex Ratio
Gujarat	60,439,692	31,491,260	28,948,432	52	48	919
Banaskantha	3,120,506	1,610,379	1,510,127	52	48	938

Source: Census of India, 2011

### 3.3.4. Scheduled Caste (SC) and Scheduled Tribe (ST) Population

70. Total Population in Gujarat stands at 60,439,692 of which Scheduled Caste (SC) population stands at 4,074,447 (7%) and Scheduled Tribe (ST) population stands at 8,917,174 (15%). Banaskantha district has a total population of 3,120,506 of which SC population stands at 327,460 (10%) and ST population stands at 284,155 (9%). Details are given in **Table 3.8**. This is just the district profile about the scheduled caste and scheduled tribe population; however, the Project will not have any impact on scheduled caste/scheduled tribe population.

**Table 3.8: Details on Percentage SC/ST**

Name/ Particulars	Total Population	Total SC Population	Percentage of SC Population	Total ST Population	Percentage of ST Population
Gujarat	60,439,692	4,074,447	7	8,917,174	15
Banaskantha	3,120,506	327,460	10	284,155	9

Source: Census of India, 2011

### 3.3.5. Male and Female Population among the Scheduled Caste

71. Total SC Population in Gujarat stands at 4,074,447 of which male population of scheduled caste (SC) stands at 2,110,331 (52%) and female population of scheduled caste (SC) stands at 1,964,116 (48%). Banaskantha district has a total SC population of 327,460 of which male SC population stands at 169,288 (52%) and female SC population stands at 158,172 (48%). Details are given in **Table 3.9**.

**Table 3.9: Male and Female Population among SC**

Name/ Particulars	Total Population (SC)	Total Male (SC)	Total Female (SC)	Percentage SC (Male)	Percentage SC (Female)
Gujarat	4,074,447	2,110,331	1,964,116	52	48
Banaskantha	327,460	169,288	158,172	52	48

Source: Census of India, 2011

### 3.3.6. Male and Female Population among the Scheduled Tribe

72. Total ST Population in Gujarat stands at 8,917,174 of which male population of ST stands at 4,501,389 (50%) and female population of ST stands at 4,415,785 (50%). Banaskantha district has a total ST population of 284,155 of which male ST population stands at 144,355 (51%) and female ST population stands at 139,800 (49%). Details are given in **Table 3.10**.

**Table 3.10: Male and Female Population among ST**

Name/ Particulars	Total Population(ST)	Total Male (ST)	Total Female (ST)	Percentage ST (Male)	Percentage ST (Female)
Gujarat	8,917,174	4,501,389	4,415,785	50	50
Banaskantha	284,155	144,355	139,800	51	49

Source: Census of India, 2011

### 3.3.7. Literacy

73. Total Population in Gujarat stands at 60,439,692 of which total literate population stands at 41,093,358 (68%) and total illiterate population stands at 19,346,334 (32%). Banaskantha district has a total population of 3,120,506 of which total literate population stands at 1,704,923 (55%) and total illiterate population stands at 1,415,583 (45%). Details are given in **Table 3.11**.

**Table 3.11: Literate and Illiterate Population**

Name/Particulars	Total Population	Total Literate	Percentage of Literate	Total illiterate	Percentage of illiterate
Gujarat	60,439,692	41,093,358	68	19,346,334	32
Banaskantha	3,120,506	1,704,923	55	1,415,583	45

Source: Census of India, 2011

### 3.3.8. Literacy among Male and Female

74. Total literate population in Gujarat stands at 41,093,358 of which total male literate population stands at 23,474,873 (57%) and total female literate population stands at 17,618,485 (43%). Banaskantha district has a total literate population of 1,704,923 of which total male literate population stands at 1,048,402 (61%) and total female illiterate population stands at 656,521 (39%). Details are given in **Table 3.12**.

**Table 3.12: Male and Female Literacy**

Name/Particulars	Total Population (Literate)	Total Male (Literate)	Total Female (Literate)	Percentage (Male)	Percentage (Female)
Gujarat	41,093,358	23,474,873	17,618,485	57	43
Banaskantha	1,704,923	1,048,402	656,521	61	39

Source: Census of India, 2011

### 3.3.9. Illiteracy among Male and Female

75. Total illiterate population in Gujarat stands at 19,346,334 of which total male illiterate population stands at 8,016,387 (41%) and total female literate population stands at 11,329,947 (59%). Banaskantha district has a total illiterate population of 1,415,583 of which total male illiterate population stands at 561,977 (40%) and total female illiterate population stands at 853,606 (60%). Details are given in **Table 3.13**.

**Table 3.13: Male and Female Illiteracy**

Name/Particulars	Total Population (Illiterate)	Total Male (Illiterate)	Total Female (Illiterate)	Percentage (Male)	Percentage (Female)
Gujarat	19,346,334	8,016,387	11,329,947	41	59
Banaskantha	1,415,583	561,977	853,606	40	60

Source: Census of India, 2011

### 3.3.10. Total Workers (Male and Female)

76. Total population into work in Gujarat stands at 24,767,747 of which total Male (work) population stands at 18,000,914 (73%) and total female (Work) population stands at 6,766,833 (27%). Banaskantha district has a total work population of 1,248,600 of which total Male (work) population stands at 836,268 (67%) and total female (Work) population stands at 412,332 (33%). Details are given in **Table 3.14**.

**Table 3.14: Details on Workers**

Name/ Particulars	Total Population (Work)	Total Male (Work)	Total Female (Work)	Percentage (Male)	Percentage (Female)
Gujarat	24,767,747	18,000,914	6,766,833	73	27
Banaskantha	1,248,600	836,268	412,332	67	33

Source: Census of India, 2011

### 3.3.11. Total Non-Workers (Male and Female)

77. Total Population (non-work) in Gujarat stands at 35,671,945 of which total Male (non-work) population stands at 13,490,346 (38%) and total female (non-work) population stands at 22,181,599 (62%). Banaskantha district has a total non-work population of 1,871,906 of which total Male (non-work) population stands at 774,111 (41%) and total female (non-work) population stands at 1,097,795 (59%). Details are given in **Table 3.15**.

**Table 3.15: Details on Non Workers**

Name/ Particulars	Total Population (Non-Work)	Total Male (Non-Work)	Total Female (Non-Work)	Percentage (Male)	Percentage (Female)
Gujarat	35,671,945	13,490,346	22,181,599	38	62
Banaskantha	1,871,906	774,111	1,097,795	41	59

Source: Census of India, 2011



## IV. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

### 4.1. Consultations

78. Public consultation/information is an integral part of the POWERGRID project cycle. POWERGRID follows a well defined procedure for conducting public consultation involving different techniques as laid down in its ESPP, which is also approved by The World Bank under the Use of Country System (UCS). There are 10 different techniques which are used either independently or in combination appropriately at different milestones of the project depending on field conditions..

79. The location for public meeting is usually selected at every 50-100 km involving major villages/habitated area en-route of line. However, in other villages/parts, informal group meetings or other techniques are applied for consultation. The consultation and feedback process is a continuous one and implemented regularly at different milestone of project cycle.

80. The process of consultation and information dissemination begins even before the start of work as POWERGRID informs the general public by publishing in 2 (Two) local newspapers in vernacular language on implementation of project indicating the route of final alignment with name of the town /villages its passing. During survey also POWERGRID site officials meet people and inform them about the routing of transmission lines. During construction, every individual, on whose land line is constructed and people affected by RoW, are consulted. Apart from this, Public consultation using different technique like Public Meeting, Small Group Meeting, Informal Meeting shall also be carried out during different activities of project cycle. During such consultation the public are informed about the project in general and in particular about the following:

- Complete project plan (i.e. its route and terminating point and substations, if any, in between);
- Design standards in relation to approved international standards;
- Health impacts in relation to EMF;
- Measures taken to avoid public utilities such as school, hospitals, etc.;
- Other impacts associated with transmission lines and POWERGRID approach to minimizing and solving them;
- Trees and crop compensation process.

81. In the instant project also, many group meetings were organized (informally and formally) in all villages where the interventions are likely to happen. Such consultation culminated in public meeting organized at different locations as provided in **Table- 4.1**. These meetings were attended by Village Panchayat members, Senior/respected person of village, interested villagers/general public and representatives from POWERGRID. To ensure maximum participation, prior intimation in local language was given and such notices were also displayed at prominent places/panchayat office etc. Details of above public consultation meetings including minutes of meeting, list of participants, photographs and public queries & answers are enclosed as **Annexure -3**.

**Table 4.1 Details of Public Consultations en-route of Transmission line**

Transmission Line	Date of meeting	Name of Village	Taluka-District-Banaskantha	No. of villagers attended	Persons Attended
Radhanesda – Banaskantha 400 kV D/c line	<b>Informal Group Meeting</b>				
	20.07.2016	Paldi	Deesa	14	Village Panchayat representatives, farmers, teachers and others interested persons attended the meeting.
		Ratanpura	Deesa	12	
		Soila	Deesa	15	
	22.07.2016	Nesda-Nava	Deesa	20	
		Nesda-Juna	Deesa	11	
		Ramvas	Deesa	15	
	23.07.2016	Soni	Deodar	14	
		Navapura	Deodar	12	
		Manpur	Deodar	15	
		Shergarh	Deodar	19	
	<b>Public Consultation Meeting</b>				
27.07.2016	Zalodha	Diodar	51	Village Sarpanch, Talati of the village and several senior dignitary of village & interested public participated in this program	

#### 4.2. Summary of Public Consultations held

82. There were altogether 11 consultations and informal group meetings held in July'16 during preliminary survey/investigations of the entire the route of transmission line in Gujarat. During consultations/interaction processes with people of the localized areas, POWERGRID field staffs explained benefit of the project, impacts of transmission line, payment of compensation for damaged of crops, trees, huts etc as per Indian Electricity Act, 2003 and Telegraph Act, 1885 and measures to avoid public utilities such as schools, hospital etc. People more or less welcomed the construction of the proposed project. Likely affected people (APs) requested for timely payment of compensation towards crops etc if damaged during construction activities at the market rate. Their queries were replied to satisfaction and it was assured that compensation would be paid in time after Revenue department fixed/award the amount.

83. Besides above, the following queries were also raised/asked by the people of the villages during Public consultation and informal group meetings;

- Benefits to Village People;
- Provision for Crop compensation;
- Jobs for Village Youth;
- Would we be benefited through this particular line?

84. POWERGRID field staffs explained above questions as follows:

- Various People get directly/indirectly benefit from this project. As per Govt. Laws, POWERGRID under its CSR program would to propose to Head Office regarding Ambulance or any other work as proposed by Village Panchayat in consultation with the administration subject to guidelines of Govt. under CSR policy and financial limitations. Also, village people may get temporary employment in the work based on skill/qualification as per requirement through contractor
- Any types of crop damages during construction, compensation towards the extent of damages etc. will be paid to the crop owner by POWERGRID after certification of Gram Pradhan/ tehsil. Any type of damages occur during construction, compensation towards the extent of damages etc. are to be assessed by Revenue dept. at the request and initiative of POWERGRID and will be borne/ compensated by POWERGRID.
- As POWERGRID being a Govt. of India Undertaking, all recruitments would be done through proper notification followed by Written Test and Interview. So, No POWERGRID staff can promise Govt. Job in this Company. But, POWERGRID employed Contractor's may employ local skilled youth.
- Construction of the line would not only benefit you but also the entire nation. POWERGRID will transmit the electricity to State Electricity Board (SEB) and villagers will be provided electricity by SEBs which will lead to development of the area.

#### 4.3. Plan for further Consultation and Community Participation during Project Implementation

85. The process of such consultation is to be continued during project implementation and even during O&M stage. The progress and proposed plan for Public consultation is described in **Table 4.2;**

**Table 4.2: Plan for Future Consultations**

S.No	Activity	Technique	Schedule
1.	<b>Detailed/ Check survey</b>	Formal/Informal Meeting at different places (20-50 Km) en-route final route alignment of line	Public meeting during 2016 (Q3) to 2017 (Q4).
2.	<b>Construction Phase</b>	Localized group meeting, Pamphlet/Information brochures, Public display etc.	During entire construction period.
3.	<b>O&amp;M Phase</b>	Information brochures, Operating field offices, Response to public enquiries, Press release etc.	Continuous process as and when required.

#### 4.4. Information Disclosure

86. The draft/summary CPTD will be disclosed by the POWERGRID to the affected households and other stakeholders by placing it on website POWERGRID site officials visit construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. A notice is also issued to APs

after the detailed/ check survey and finalization of tower location during the construction. Affected persons also visit site/construction offices of POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD and Entitlement Matrix will also be made available to public through POWERGRID's construction offices in Hindi & English. The collection of comments will take place after one month of the disclosure of the CPTD, followed by the compilation of the comments and responses received. Subsequently, the POWERGRID will organize further public consultation meetings with the stakeholders to share the views of public on the Plan for all possible clarifications. The feedback from the consultation will be reviewed and incorporated in the revised and final CPTD. The consultation process will continue throughout the project implementation period. POWERGRID will disclose revisions of the CPTD and updates if any, on its website and provide relevant information of monitoring reports to affected people and other stakeholders. This is to be done in a timely manner and in English and Hindi.

## V. GRIEVANCE REDRESS MECHANISM

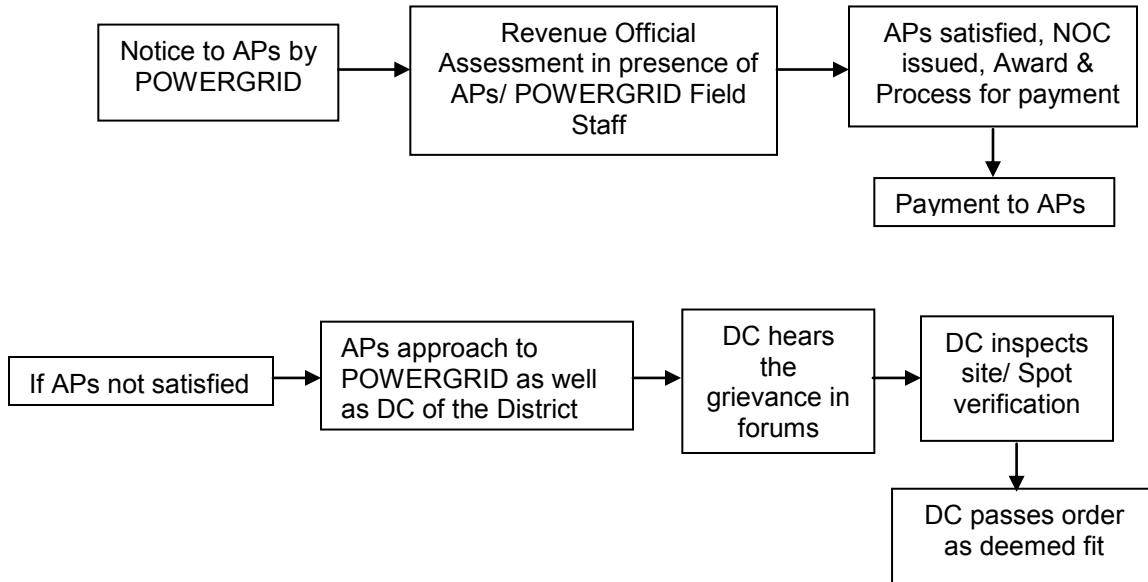
87. Grievance Redress Mechanism (GRM) is an integral and important mechanism for addressing/resolving the concern and grievances in a transparent and swift manner. Many minor concerns of peoples are addressed during public consultation process initiated at the beginning of the project. For handling grievance, Grievance Redress Committee (GRC) will be established at two places, one at the project/scheme level and another at Corporate/HQ level. The GRCs shall include members from POWERGRID, Local Administration, Panchayat Members, Affected Persons representative and reputed persons from the society on nomination basis under the chairmanship of project head. The composition of GRC shall be disclosed in Panchayat/Village council offices and concerned district headquarter for wider coverage.

88. The complainant will also be allowed to submit its complaint to local project official who will pass it to GRC immediately but not more than 5 days of receiving such complaint. The first meeting of GRC will be organized within 15 days of its constitution/disclosure to formulate procedure and frequency of meeting. In case of any complaint, GRC meeting shall be convened within 15 days. If Project level GRC not able to take decision it may refer the complaint to corporate GRC for solution. GRC endeavour will be to pronounce its decision within 30-45 days of receiving grievances. In case complainant/appellant is not satisfied with the decision of project level GRC they can make an appeal to corporate GRC for review.

89. The corporate level GRC shall function under the chairmanship of Director (Project) who will nominate other members of GRC including one representative from Environment and Social Management Department (ESMD) who is conversant with the environment & social issues. The meeting of Corporate GRC shall be convened within 7-10 days of receiving the reference from Project level GRC or complainant directly and pronounce its decision within next 15 days.

90. Additionally, grievance redressal is in built in crop/tree compensation process where affected persons are given a chance to place their grievances after issuance of notice by revenue officials on the basis of assessment of actual damages. Grievances received towards compensation are generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector/ its authorised representative also provides forum for raising the grievance towards any irregularity/complain. Apart from this, POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful. All efforts shall be made to redress/decision on the complaints within 30 to 45 days maximum. POWERGRID will develop, improve, and maintain recording and tracking systems for GRM as per the Action Plan for Safeguards. The proposed mechanism does not impede access to the country's judicial or administrative remedies. Details are depicted below in **Figure-2**:

**Figure-2: Grievance Redress Mechanism**



## **VI. LEGAL FRAMEWORK**

### **6.1. Overview**

91. The CPTD is based on ESPP and the Action Plan for Safeguards as well as on the Borrower's domestic policy instruments and laws. In India, compensation for land acquisition (LA) and resettlement assistance for project affected persons/families is directed by the National law, "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013" (hereafter RFCT in LARR, 2013), effective from 1<sup>st</sup> January 2014. Being a transmission project, the relevant national laws applicable for this project are (i) The Electricity Act, 2003 (ii) The Indian Telegraph Act, 1885 and POWERGRID's Environmental and Social Policy & Procedures, 2009 (ESPP). The compensation principles adopted for the project shall comply with applicable laws and regulations of the Government of India/ State Govt, ESPP as well as the Action Plan for Safeguards.

### **6.2 ADB'S Safeguard Policy Statement (SPS), 2009<sup>9</sup>**

92. ADB has adopted Safeguard Policy Statement (SPS) in 2009 including safeguard requirements for environment, involuntary resettlement and indigenous people. The objectives of the Involuntary Resettlement Safeguard policy is to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

The involuntary resettlement safeguards cover physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary. The three important elements of ADB's SPS (2009) are: (i) compensation at replacement cost for lost assets, livelihood, and income prior to displacement; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. The SPS gives special attention to poor and vulnerable households to ensure their improved well-being as a result of project interventions.

### **6.3. Compensation**

93. Transmission line route involves forest area and non forest area. Forest area is usually avoided while routing of transmission line. As per prevailing law, land below transmission line or for tower foundation is not acquired. POWERGRID pay compensation for damages as per the norms. Impacts on agriculture land are restricted mainly to the construction phase.

### **6.4. Statutory Requirements**

94. Transmission lines are constructed under the ambit of Electricity Act, 2003. The

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<sup>9</sup> The safeguard requirements of ADB vis-s-vis POWERGRID's ESPP have been analyzed in detailed for use of Country Safeguards System (CSS) under ADB's SPS' 2009 and an action plan has been drawn to make it fully compliant under CSS which is enclosed as Annexure-6.

provisions stipulated in section 67-68 of the Electricity Act, 2003 read with section 10 & 16 of the Indian Telegraph Act, 1885 governs the compensation as POWERGRID has been vested with the powers of Telegraph Authority vide MoP's Gazette Notification dated 24.12.03 under sec 164 of the Electricity Act. As per the provision of Indian Telegraph Act, 1885 Section 10 b), POWERGRID is not authorized to acquire any land hence land under tower is not acquired. However, compensation for all damages are paid to the individual land owner as per the provision of Section-10 d) of Indian Telegraph Act, 1885.

95. The provisions in the Electricity Act, 2003 and Indian Telegraph Act, 1885 regarding compensation for laying of transmission lines are as follows:

#### **6.4.1. The Electricity Act, 2003, Part-VIII, Section 67 & 68**

**Quote:**

##### **Section 67 (3-5):**

- (3) *A licensee shall, in exercise of any of the powers conferred by or under this section and the rules made thereunder, cause as little damage, detriment and inconvenience as may be, and shall make full compensation for any damage, detriment or inconvenience caused by him or by any one employed by him.*
- (4) *Where any difference or dispute [including amount of compensation under sub-section (3)] arises under this section, the matter shall be determined by the Appropriate Commission.*
- (5) *The Appropriate Commission, while determining any difference or dispute arising under this section in addition to any compensation under sub-section (3), may impose a penalty not exceeding the amount of compensation payable under that sub-section.*

##### **Section 68 (5 & 6):**

- (5) *Where any **tree standing or lying near an overhead line or where any structure or other object which has been placed or has fallen near an overhead line** subsequent to the placing of such line, interrupts or interferes with, or is likely to interrupt or interfere with, the conveyance or transmission of electricity or to interrupt or interfere with, the conveyance or transmission of electricity or the accessibility of any works, an Executive Magistrate or authority specified by the Appropriate Government may, on the application of the licensee, cause the tree, structure or object to be removed or otherwise dealt with as he or it thinks fit.*
- (6) *When disposing of an application under sub-section (5), an Executive Magistrate or authority specified under that sub-section shall, in the case of any tree in existence before the placing of the overhead line, **award to the person interested in the tree such compensation as he thinks reasonable, and such person may recover the same from the licensee.***  
*Explanation. - For purposes of this section, the expression "tree" shall be deemed to include any shrub, hedge, jungle growth or other plant.*

**Unquote.**

#### **6.4.2. The Indian Telegraph Act, 1885, Part-III, Section 10 :**

**Quote:**



**Section 10** – *The telegraph authority may, from time to time, place and maintain a telegraph line under, over, along, or across, and posts in or upon any immovable property, Provided that*

- a) *the telegraph authority shall not exercise the powers conferred by this section except for the purposes of a telegraph established or maintained by the [Central Government], or to be so established or maintained;*
- b) ***the [Central Government] shall not acquire any right other than that of user only in the property under, over, along, across in or upon which the telegraph authority places any telegraph line or post; and***
- c) *except as hereinafter provided, the telegraph authority shall not exercise those powers in respect of any property vested in or under the control or management of any local authority, without the permission of that authority; and*
- d) ***in the exercise of the powers conferred by this section, the telegraph authority shall do as little damage as possible, and, when it has exercised those powers in respect of any property other than that referred to in clause (c), shall pay full compensation to all persons interested for any damage sustained by them by reason of the exercise of those powers.***

**Unquote.**

96. **Section 16 of the Indian Telegraph Act, 1885 which stipulates as under:**

**16. Exercise of powers conferred by section 10, and disputes as to compensation, in case of property other than that of a local authority:**

- (1) *If the exercise of the powers mentioned in Section 10 in respect of property referred to in clause (d) of that section is resisted or obstructed, the District Magistrate may, in his discretion, order that the telegraph authority shall be permitted to exercise them.*
- (2) *If, after the making of an order under sub section (1), any person resists the exercise of those powers, or, having control over the property, does not give all facilities for this being exercised, he shall be deemed to have committed an offence under section 188 of the Indian Penal Code (45 of 1860).*

97. Ministry of Power (MoP) vide its order No. 3/7/2015-Trans dated 15<sup>th</sup> April'15 constituted a Committee comprising of representatives of various State Govt., MoP, Central Electricity Authority (CEA) & POWERGRID under the chairmanship of Special Secretary, MoP to analyze the issues relating to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this account. Based on recommendation of the Committee, Ministry of Power, Govt. of India vide its notification dated 15<sup>th</sup> Oct'15 has issued guidelines for payment of compensation for damages in regard to RoW (**Annexure-4**) The said guideline was adopted by Govt. of Gujarat vide order dated 23.06.16 for implementation (**Annexure-5**). POWERGRID shall pay compensation towards diminution land value to all affected farmers/land owners. Thus, following compensation shall be paid in addition to normal tree and crop damage compensation:

- i) **Tower base:** Compensation @ 85% of land value as determined by DM or any other authority based on Circle rate/ Guideline value/ Stamp Act for tower base area (between four legs).
- ii) **Line corridor:** Diminution of land value in the RoW would be decided by States as per categorization/type of land in different places of State subject to maximum of 15% of land

value as determined based on Circle rate/ Guideline value/ Stamp Act.

#### **6.4.3. POWERGRID's ESPP, 2009**

98. To address the environmental and social issues related to its power transmission projects, POWERGRID has developed its corporate environmental and social policy and procedures (ESPP) in 1998 based on the principles of avoidance, minimization, and mitigation. The ESPP had been updated twice in 2005 & 2009 in line with the requirement of new enactment by Govt. of India, changed rules and guidelines including that of multilateral funding agency like World Bank, ADB, JBIC etc. and suggestion/best practices and feedback received from different sites and through wide consultation process with various stakeholders. POWERGRID's ESPP'2009 is the first comprehensively analysed by World Bank's under its 'Use of Country Systems (UCS)' policy and is certified to be compliant with Bank's environmental and social safeguards requirement

99. ESPP 2009 outlines POWERGRID's approach and commitment in dealing with the environmental and social issues relating to its transmission projects, lays down the management procedures and protocols for the purpose that includes the framework for identification, assessment, and management of environmental and social concerns at both organizational and project levels.

100. Specifically on social, the following criteria and approach are considered in the ESPP:

- (i) Take due precautions to minimize disturbance to human habitations, tribal areas and places of cultural significance.
- (ii) Take due care of Project Affected Persons (PAP).
- (iii) Involve affected people from inception stage to operation and maintenance.
- (iv) Consult affected people in issues of ROWs, land acquisition or loss of livelihood.
- (v) Encourage consultation with communities in identifying environmental and social implications of projects.
- (vi) Guarantee entitlements and compensation to affected people as per its R&R policy.
- (vii) Share information with local communities about environmental and social implications.
- (viii) Always maintain highest standards of health and safety and adequately compensate affected persons in case of any eventuality.

101. POWERGRID's social entitlements within its Resettlement and Rehabilitation (R&R) framework are varied and include different types of compensation packages. Temporary damages will occur during construction of transmission lines. The R&R framework is applicable in case of permanent land acquisition and not for temporary damages.

102. The Action Plan for Safeguards agreed for full compliance during the CSS equivalent (**Annexure-6**).

#### **6.5. Basic Principles for the Project**

103. The basic principles adopted for the Project are:

- (i) Avoid negative impacts of land acquisition and involuntary resettlement on persons affected by the Project to the extent possible.

- (ii) Where negative impacts cannot be avoided, assist affected persons (AP), in improving or at least regaining their standard of living and income.
- (iii) Carry out meaningful consultations with affected persons and inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation and monitoring of the Project
- (iv) Disclose all information related to, and ensure AP participation in, resettlement planning and implementation.
- (v) Provide compensation for acquired assets at replacement/market value in accordance with the RP/CPTD.
- (vi) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
- (vii) Provide resettlement assistance and income restoration to APs.
- (viii) Provide for APs not present during enumeration. However, anyone moving into the project area after will not be entitled to assistance.
- (ix) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
- (x) Provide compensation and resettlement assistance prior to taking possession of the acquired lands and properties.
- (xi) Establish grievance redress mechanisms to ensure speedy resolution of disputes.
- (xii) Ensure adequate budgetary support to cover implementation costs for CPTD.
- (xiii) Monitoring (if required) of the implementation of CPTD.

104. Additionally, the issues related to the Right of Way (RoW) for the transmission lines will be dealt with proper care especially for the temporary loss. For the loss of crops and trees due to construction of overhead lines, cash compensation payable by cheque/through online transfer will be provided during construction works. Further, cash compensation (by cheque/ online transfer) to the APs for the temporary loss of crop and loss of trees if occurred, during the time of maintenance and repair.

## **6.6. Cut-off- Date**

105. The impacts are temporary in nature in terms of loss of crops etc., which will occur during the construction. The compensation will be paid parallelly with construction activities of transmission lines as per assessment of actual damage. A prior notice is served after the detailed/check survey and finalization of tower location during the construction to the land owners informing that the proposed transmission line is being routed through the property of the individual. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops inevitability to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owner. This serves as a record for identifying the actual APs and the date of issuance of this notice can be treated as cut-off-date for identification and assessment of damages.

## VII. ENTITLEMENTS, ASSISTANCE AND BENEFITS

### 7.1. Entitlements

106. APs will be entitled for compensation for temporary damages to crops/trees/structures etc. as per the Entitlement Matrix given in **Table 7.1**. The Land Acquisition Act (LAA) will be applicable for the compulsory acquisition of land. They will also receive 'rehabilitation assistance' if their land is permanently acquired, their income source is adversely affected, their homes are fully or partially affected, or other properties such as commercial structures or agricultural structures, crops, trees, and other facilities or access to properties are damaged or reduced because of the Project. Lack of legal documents of their customary rights of occupancy or land titles shall not affect their eligibility for compensation. In the instant case, there is no involuntary land acquisition is involved, only temporary damage will occur during construction of transmission line for which compensation is paid as per relevant norms. Compensation towards temporary damages to all eligible APs including non-title holders is paid as per the assessment and Entitlement Matrix.

107. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills. One time lump sum assistance to vulnerable households on recommendation of State Authority.

### 7.2. Entitlement Matrix

108. An Entitlement Matrix for the subprojects is given in **Table 7.1**.

**Table 7.1: Entitlement Matrix**

S.N	TYPE OF ISSUE/ IMPACT	BENEFICIARY	ENTITLEMENT OPTIONS
1.	Loss of crops and trees	Title Holder	Compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops. Timber will be retained by the owner.
2.	Loss of crops and trees	Tenant/ sharecropper/ leaseholder <sup>10</sup>	Only the cultivator <sup>11</sup> will get compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops.
3.	Other damages (if applicable)	All APs <sup>12</sup>	Replacement cost as assessed by the concerned authority.
4.	Loss of structure		
	a) House		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation at replacement cost (without deduction for salvaged material) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for

<sup>10</sup> This may include non titled APs

<sup>11</sup> Powergrid will explain to AP tenant/sharecropper/leaseholder that the compensation will be provided to the cultivator and the sharing arrangements will have to be determined among themselves

<sup>12</sup> Titled and Non-titled

S.N	TYPE OF ISSUE/ IMPACT	BENEFICIARY	ENTITLEMENT OPTIONS
			construction of house plus transition benefits as per category-5 below
	b) Shop/ Institutions		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation plus Rs. 10,000/- for construction of working shed/shop plus rehabilitation assistance equivalent to 1 year income plus transition benefits as per category-5 below
5.	Losses during transition of displaced persons/ establishments/ Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
6	Impacts on vulnerable APs	Vulnerable APs <sup>13</sup>	One time lumpsum assistance to vulnerable households on recommendation of State Authority. This will be paid over and above other assistance. Vulnerable APs to get priority under CSR activities.
7	Land area below tower base	Owner	85% of land cost as decided by District Magistrate(#)
8	Land coming in corridor of width of Right of Way	Owner	15% of land cost as decided by District Magistrate (#)

(#): As per MoP guidelines dated 15.10.15 and subsequent order issued by Govt of Gujarat on 23.06.16 .regarding payment of compensation for damages in respect to RoW for transmission line

### 7.3. Procedure of Tree/crop compensation

109. In exercise of the powers conferred by section 164 of the Electricity Act, 2003, Ministry of Power vide Gazette notification dated Dec 24, 2003 has authorized POWERGRID to exercise all the power vested in the Telegraph Authority under part-III of the Indian Telegraph Act, 1885, to place and maintain transmission lines under over along or across and posts in or upon, any immovable property. The provisions of same act in Section 10 (d) stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, POWERGRID pays compensation to land owners towards damages if any to tree, crop etc. during implementation of transmission project as well as during operation and maintenance phase. The procedure followed for such compensation is as follows:

110. POWERGRID follows the principle of Avoidance, Minimization and Mitigation in the construction of line in agricultural field having crop due to inherent flexibility in phasing the construction activity and tries to defer construction in cropped area to facilitate crop harvesting. However, if it is unavoidable and is likely to affect project schedule, compensation is given at market rate for standing crops. All efforts are also taken to minimize the crop damage to the extent possible in such cases. As regards trees coming in the Right of Way (ROW) following

<sup>13</sup> Vulnerable APs include scheduled tribes/ scheduled caste/ households headed by women/ physically handicapped/ disabled families, etc. as certified by local authority.

procedure is adopted for enumeration:

- All the trees which are coming within the clearance belt of ROW on either side of the center line are identified and marked/numbered from one AP to the other and documented.
- Type, Girth (Measured 1 m. above ground level), approximate height of the tree is also noted for each tree
- Trees belonging to Govt., Forest, Highways and other local bodies may be separately noted down or timely follow up with the concerned authorities for inspection and removal.
- Guava, Lemon, and other hybrid trees which are not of tall growing nature are not marked for cutting since these trees can be crossed using standard tower extensions if required.

111. A prior notice is served to the land owners informing that the proposed transmission line is being routed through the property of the individual. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops inevitably likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owner. A copy of said notice is further issued to the Revenue Officer, who has been authorized by the State Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties.

112. The revenue officer shall further issue a notice of intimation to the concerned land owner and inspect the site to verify the documents related to the proof of ownership and a detailed Mahazar is prepared for the identified trees and crops inevitably damaged during the course of the construction. For assessing the true value of timber yielding trees, help of forest officials is taken and for fruit bearing trees, help of Horticulture department is taken.

113. The Mahazars shall contain the land owner details type of tree/crop, its present age, variety, yielding pattern etc. and the same is prepared at site in the presence of the land owner. These Mahazar are further compiled and a random verification is conducted by the concerned District Collector or his authorized representative in order to ascertain the assessment carried out by the revenue office is genuine and correct. After this process the District collector issues a tree cutting permit to POWERGRID to enable removal / damage to the standing tree/crop identified in the line corridor.

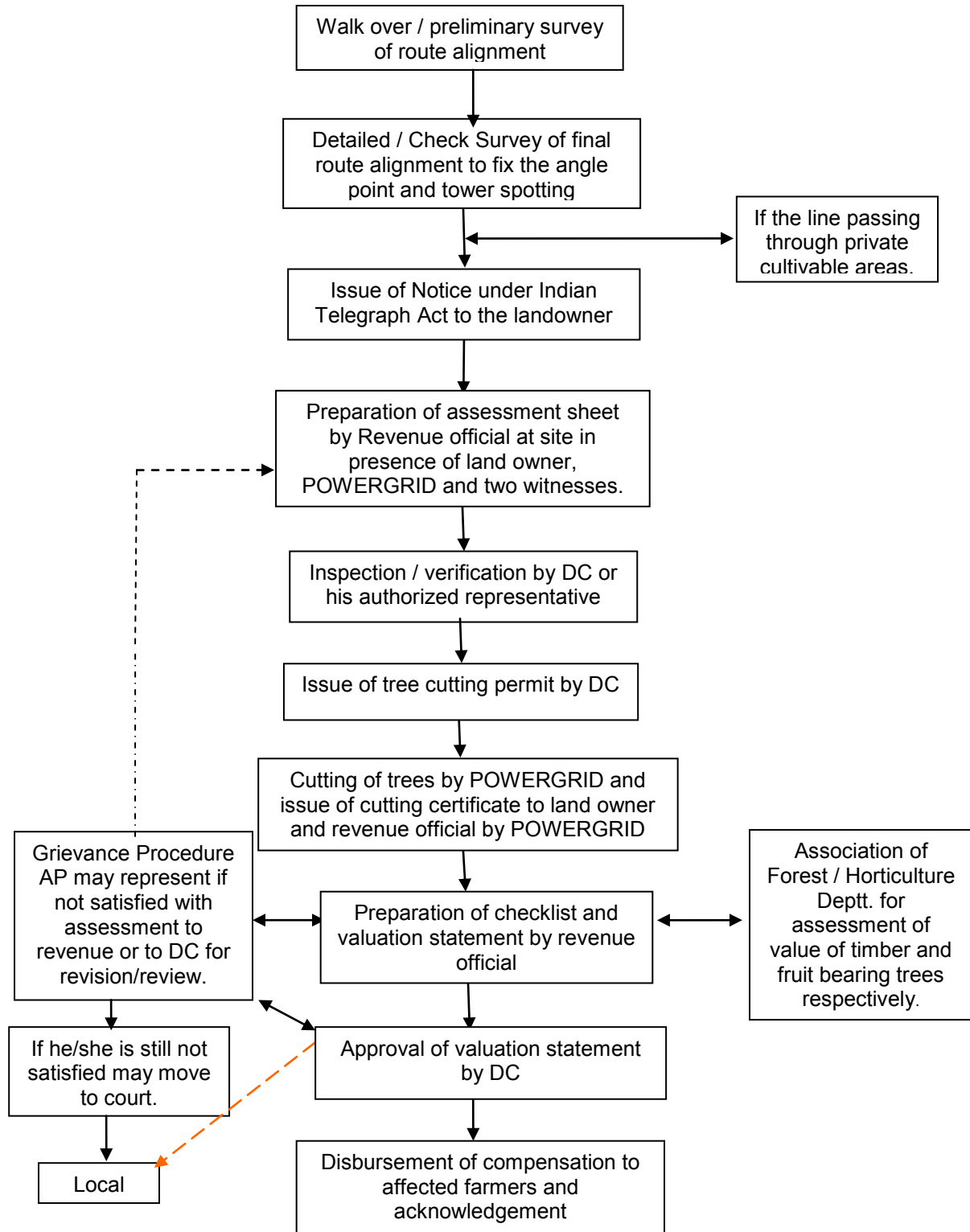
114. Once the tree/crop is removed / damaged, POWERGRID shall issue a tree cutting/crop damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is prepared for this purpose. The detailed Valuation statement is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors. The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction area ranges from 0.45 to 0.7 m. a small square area of about 0.2 sq.m. to 0.49 sq.m. depending on the type of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for 400KV D/C transmission tower is approximately 1 sq.m. of land. This impact on agriculture land is negligible. However, while assessing the compensation for damages, POWERGRID considers larger area during calculation of damages (approximately 60X60 m= 3600 sq.m.) compared to an actual area of about (40X40 m=1600 sq.m.) which allows for a buffer. Thus payment for buffer portion adequately compensates the permanent inability to crop the small areas of land occupied by the

tower footings, which is also explained to affected persons during consultation/measurement survey. A sample proforma for compensation is enclosed as **Annexure-7**.

115. On approval of compensation, the revenue officer shall further intimate the amount payable to the different land owners and POWERGRID arranges the payment by way of cheque/online transfer to the affected parties. The payment is further disbursed at the local village office after due verification of the documents in presence of other witnesses.

116. For other damages, State Govt. Revenue Department assess the cost of damage. The total estimate is submitted for approval to the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ Sarpanch and respective acknowledgements are obtained and POWERGRID pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms. Process of tree/crop compensation is depicted in **Figure-3**.

**Figure-3: Tree / Crop Compensation Process**





## VIII. COMPENSATION FOR STRUCTURE

117. No physical displacement is envisaged in the proposed project. Major damages in transmission line are not envisaged due to flexibility of routing of transmission line. Transmission line construction is done mainly in the lean period to reduce damages to crops. Displacement of structures is normally not envisaged in the transmission line projects. However, whenever it is necessary, compensation for structures as per entitlement matrix of CPTD shall be provided (**Table 7.1**). In the instant case, 15 numbers of small structures likely to be encountered in the right of way of proposed transmission line. These are small sheds/small storage which are associated with the agricultural fields. People do not use these small structures/sheds for residential purpose. A notice for damage is issued to APs and the joint measurement by POWERGRID and APs is to be done and verified by revenue official for actual damages. The compensation for huts will be paid to the APs as decided by committee based on government norms. Hence, compensation is paid parallelly with the construction activity of transmission line.

## IX. BUDGET

118. The CPTD Implementation cost estimate for the project includes eligible compensation for loss of crops, trees, huts and support cost for implementation of CPTD, monitoring, other administrative cost etc. A budget provision has been made for compensation for Tower Base (85% of the land cost) and RoW Corridor (15% of the land cost) as per MoP guidelines and State Govt. order. Accordingly the cost has been estimated in the budget by including these provisions. However, this is a tentative budget which may change during the original course of implementation. The unit cost for the loss of crop has been derived through rapid field appraisal and based on POWERGRID's old experience of similar project implementation. Contingency provision equivalent to 3% of the total cost has also been made to accommodate any variations from this estimate. Sufficient Budget has been provided to cover all compensation towards crops losses, other damages etc., As per POWERGRID's previous projects and strategy for minimization of impacts an average of 45% of the affected land is expected for compensation for crops and other damages. Structure will be avoided to the extent possible. However, if any structure is affected, budget provisions are available to cover all damages as per entitlement matrix. In any case no residential structure shall be affected. Therefore, provisions of budget expenditure for implementation of CPTD for the subprojects considering corridor of 40 meter maximum (though affected part of corridor for compensation of crops/other damages would be about 45% as per POWERGRID's projects previous practices). The total indicative cost is estimated to be INR 317.62 million equivalent to USD 4.96million. Details are given in **Table 9.1**. The following estimated budget is part of complete project cost as on date including the counterpart financing to be met by POWERGRID sources. However, actual updation of the estimated cost shall be updated during execution.

**Table 9.1: Budget**

Item	Unit	Unit Cost (INRs)	Quantity	Amount (INRs)	Amount in (Million INRs)
<b>A. Compensation</b>					
A-1: Loss of Crops <sup>14</sup>	Hectare	40925.00	415.40	17000245.00	17.00
A-2: Loss of Trees	Numbers	5000.00	5800.00	29000000.00	29.00
A-3: Loss of Structures (Small Structures associated with agricultural Land)	Number	100000.00	15.00	1500000.00	1.50
A-4: Land Compensation for Tower Base and RoW Corridor	Lump Sum			259418000.00	259.42
<b>Sub Total-A</b>				<b>306918245.00</b>	<b>306.92</b>
<b>B: Implementation Support Cost</b>					
B-1: Man-power involved for SMP implementation & Monitoring	km	10000.00	95.00	950000.00	0.95
B-2: External Monitoring if required	Lump sum			500000.00	0.50
<b>Sub Total- B</b>				<b>1450000.00</b>	<b>1.45</b>
<b>Total (A+B)</b>				<b>308368245.00</b>	<b>308.37</b>
<b>Contingency (3%)</b>				<b>9251047.35</b>	<b>9.25</b>
<b>Grand Total</b>				<b>317619292.35</b>	<b>317.62</b>
<b>Grand Total (USD)</b>				<b>4962801.44</b>	<b>4.96</b>

**Note:**

- Budget estimate is only indicative
- POWERGRID shall also implement need based Community Development Work under Corporate Social Responsibility (CSR) during/ after implementation of the project.

**Land Compensation for Tower Base and RoW Corridor (As per MoP Guidelines)**

Name of Line	Line Length (Kms)	Land Area for Tower Base (acre)	Land Area for RoW Corridor (acre)	Avg Cost of Land (Lakhs / acre)	Total in Lakhs (Tower base @ 85% & Corridor@15%)
400 kV D/c Radhanesda-Banaskantha line	95.00	16.14	1063.05	15.00	2594.18

<sup>14</sup> Area likely to be affected and considered for compensation within 40 meter width/corridor is as follows

- Affected area for Crops (85 Km x 40 m) = 340 Ha.
- Addl. area affected for Tower Foundation =51.4 Ha
- Affected area for Trees (Pvt. Plantation- 6 Km x 40 m) = 24 Ha.
- Total Area= 415.40 ha

## **X. INSTITUTIONAL ARRANGEMENTS**

### **10.1. General**

119. POWERGRID will be the Implementing Agency (IA) for the Project. The implementation and monitoring are critical activities shall be followed as per Implementation Chart/Schedule. Monitoring is a continuous process for POWERGRID projects at all the stages are it the site selection, construction or maintenance. The success of POWERGRID lies in its strong monitoring systems. Apart from the site managers reviewing the progress on daily basis regular project review meetings are held at least on monthly basis which is chaired by Executive Director of the region wherein apart from construction issues the environmental aspects of the projects are discussed and remedial measures taken wherever required. The exceptions of these meetings are submitted to the Directors and Chairman & Managing Director of the Corporation. The progress of various on-going projects is also informed to the Board of Directors. Following is the organization support system for proper implementation and monitoring of Environmental & Social Management Plan:

### **10.2. Various Levels**

#### **10.2.1. Corporate Level**

120. An Environmental Management Cell at corporate level was created within POWERGRID in 1992 and subsequently upgraded to an Environment Management Department (EMD) in 1993 and in 1997 it has been further upgraded to Environment & Social Management Deptt. (ESMD) by incorporating social aspect of project. Briefly, the ESMD's responsibilities are as follows:

- Advising and coordinating RHQs and Site to carry out environmental and social surveys for new projects;
- Assisting RHQs and site to finalize routes of entire power transmission line considering environmental and social factors that could arise en-route;
- Help RHQs and Site to follow-up with the state forest offices and other state departments in expediting forest clearances and the land acquisition process of various ongoing and new projects;
- Act as a focal point for interaction with the MoEF&CC for expediting forest clearances and follow-ups with the Ministry of Power;
- Imparts training to POWERGRID's Regional Head Quarters (RHQs) & Site Officials on environment and social issues and their management plan.

#### **10.2.2. Regional Level**

121. At its Regional Office, POWERGRID has an Environmental and Social Management cell (ESMC) to manage Environmental and Social issues and to coordinate between ESMD at the Corporate level and the Construction Area Office (CAO) of site. The key functions envisaged for ESCM are:

- Advising and coordinating field offices to carry out environmental and social surveys for new projects envisaged in the Corporate Investment Plan;
- Assisting the ESMD and CAOs to finalize routes of entire power transmission lines considering the environmental and social factors that could arise en-route;

- To follow-up forest clearances and land acquisition processes with state forest offices and other state departments for various ongoing and new projects;
- Acting as a focal point for interaction with the ESMD and CAOs on various environmental and social aspects.

### 10.2.3. Site Office

122. At the Construction Area Office (CAO) level, POWERGRID has made the head of the site responsible for implementing the environmental and social aspects of project and is also head of Environmental and Social Management Team (ESMT) at site. Key functions of the ESMT are:

- Conduct surveys on environmental and social aspects to finalize the route for the power transmission projects
- Conduct surveys & Interact with Revenue Authorities for land acquisition.
- Interact with the Forest Departments to make the forest proposal and follow it up for MoEF&CC clearance.
- Implementation of Environment Management Plan (EMP)/CPTD
- Monitoring of EMP/CPTD & producing periodic reports on the same.

123. For the instant subprojects, POWERGRID will implement the CPTD and will do the overall coordination, planning, implementation, financing and maintaining all databases, work closely with APs and other stakeholders. The database will be managed by POWERGRID through its Regional ESMC staffs by collecting input from the field staffs which may be monitored/audit by the external monitoring agency, if required. POWERGRID will ensure that local governments are involved in the plans implementation to facilitate all settlement of compensation related activities before commencing civil works. Based on regularly updated social assessment & compensation data, a central database will also be maintained by POWERGRID. Roles and responsibilities of various agencies are presented in **Table 10.1**.

**Table 10.1: Agencies Responsible for CPTD Implementation**

<b>Activity</b>	<b>Agency Responsible</b>
Implementing CPTD	Field staffs, POWERGRID
Updating the CPTD	ESMC (RHQ), POWERGRID
Review and Approval of CPTD	POWERGRID
Verification survey for identification of APs	POWERGRID field staffs & Revenue officials
Survey for identification of plots for Crop/Tree/ other damages Compensation	POWERGRID & Revenue officials
Consultation and disclosure of CPTD to APs	POWERGRID & Revenue officials
Compensation award and payment of compensation	Revenue Dept / Competent Authority
Fixing of replace cost and assistance	Revenue Dept / Competent Authority
Payment of replacement cost compensation	POWERGRID
Takeover temporary possession of land/houses	POWERGRID and Revenue Department
Hand over temporary possession land to contractors for construction	POWERGRID

<b>Activity</b>	<b>Agency Responsible</b>
Notify construction starting date to APs	POWERGRID field staffs
Restoration of temporarily acquired land to its original state including restoration of private or common property resources	Contractors subject to monitoring by POWERGRID
Development, maintenance and updating of Compensation database	POWERGRID
Development, maintenance and updating of central database	POWERGRID
Internal monitoring	POWERGRID
External monitoring, if required	External Monitoring Agency

### **10.3. Staff Training on Environment and Social Issues**

124. Environment and social Management Department (ESMD) in association with HRD organizes training program on Environment and Social Management (E & S M) including Sustainability, Corporate Social Responsibility, ISO-14001 requirements. During FY 2014-15 and FY 2015-16, POWERGRID have been imparted training more than 900 Mandays on E & S aspects. During FY 2016-17, various training on E&S is under progress. Selected officials have also been attended The World Bank sponsored training program on R&R at different places like Hyderabad, Bangalore and Udaipur. Four officials have also been deputed to Japan for AOTS training program on Environment Management. Officials are also attended training organized by ADB. POWERGRID organized a two days training programme on ADB's safeguard requirements on 6<sup>th</sup> & 7<sup>th</sup> Aug' 2013 at Lucknow in which ADB environment & social expert also presented and informed the participants about ADB's safeguard requirements. Executives at ground levels have shown remarkable improvement in appreciating/ dealing with these issues. Apart from these, dedicated program in all other technical training program one slot is invariably provided particularly for Environmental & Social issues and it's Management.

## XI. IMPLEMENTATION SCHEDULE

125. Assuming Award letter for execution of work to be placed in Oct.'16 the following work Schedule is drawn for implementation of CPTD. Tentative implementation schedule for project including various sub tasks presented in **Table 11.1**.

**Table 11.1 Tentative Implementation Schedule**

Sl. No.	Activity	2016				2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.	<b>Initial CPTD Matrix disclosure</b>			—									
2.	<b>Detailed Survey</b>				—								
3.	<b>Public Consultation</b>		—										
4.	<b>Compensation Plan</b>				—								
i)	Compilation of land record, ownership,				—								
ii)	Finalization of list of APs, fixing rate by DC				- - - - -								
iv)	Serving of Notice to APs				- - - - -								
v)	Joint Assessment & Acknowledgement by APs				.....								
vi)	Validation of Compensation amount				.....								
vii)	Compensation Payment				.....								
5.	<b>Civil Works</b>				—								
6.	<b>Review/ Activity Monitoring</b>				—								
i)	Monthly				.....								
ii)	Quarterly				↔ ↔ ↔ ↔ ↔								
iii)	Half yearly				↔ ↔ ↔								
iv)	Annual						—					—	
7.	<b>Grievances</b>				—								
i)	Grievance redressal, if any				.....								
8.	<b>CPTD Documentation</b>				—								
9.	<b>Ext. Auditing, if required</b>											—	

## XII. MONITORING AND REPORTING

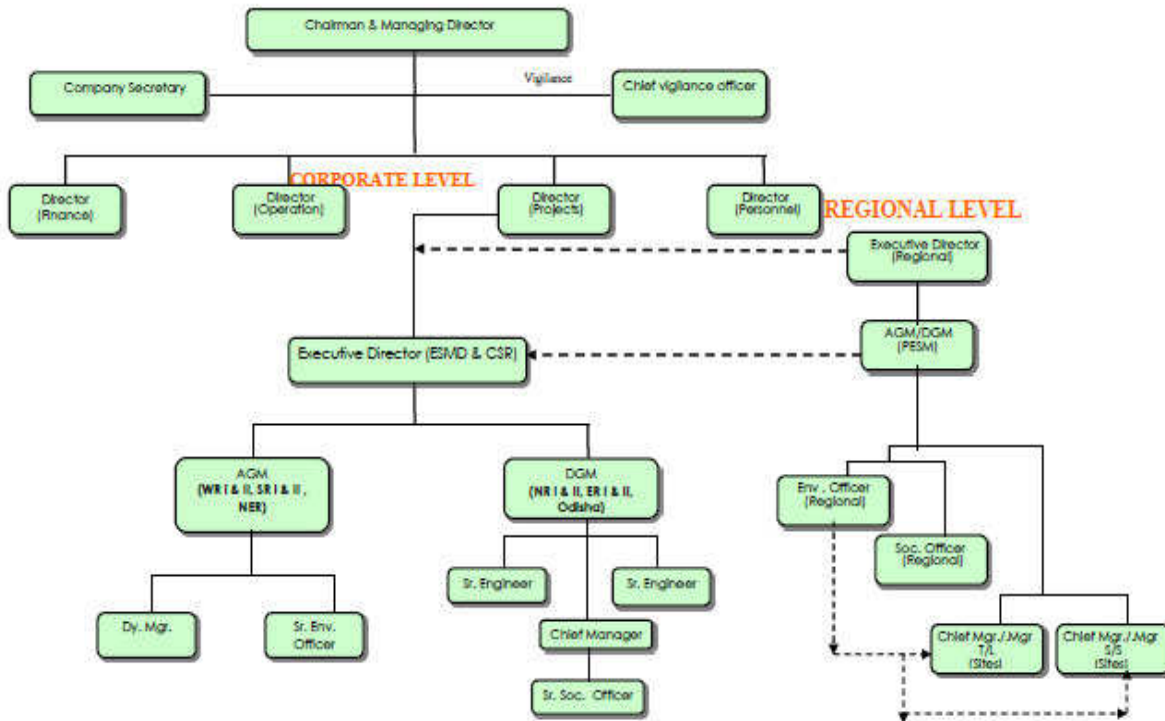
126. Monitoring will be the responsibility of POWERGRID. POWERGRID will disclose semi-annual monitoring reports on their safeguards implementation performance on POWERGRID's website and submit the reports to ADB for information and disclosure.

127. Internal monitoring of POWERGRID will include: (i) administrative monitoring: daily planning, implementation, feedback and trouble shooting, maintenance, and progress reports; (ii) socio-economic monitoring: compensation of crops/trees or any other damages, demolition if any, salvaging materials, dates for consultations, and number of appeals placed; and (iii) post-implementation monitoring of the APs. Semi-annual monitoring reports documenting progress on implementation of CPTD and grievance redressal will be provided by POWERGRID to ADB.

128. POWERGRID will engage the services of an independent agency/external monitoring, if required. Provisions have been made in the compensation budget component for engaging an external monitor.

129. POWERGRID is well equipped to implement and monitor its environment and social management plan including CPTD. Organizational Support Structure for monitoring of above is given in **Figure-4**. Monitoring report will be submitted to ADB semi-annually and the same will be disclosed on POWERGRID's and ADB's website.

**Figure -4 Organization Support Structure for EMP & CPTD Monitoring**



## ***ANNEXURE - 1***

# ***EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT OF 400 KV D/C RADHANESDA – BANASKANTHA LINE***



## EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT OF 400 KV D/C RADHANESDA – BANASKANTHA LINE

Three different alignments were studied with the help of published data/maps such as Forest Atlas, Survey of India topographic sheets, etc. and walkover survey to arrive at the most optimum route to be considered for detailed survey and assessment. The comparative details of these alternatives is placed in Table below:

S.N	Description	Alternative-I	Alternative-II	Alternative-III
<b>BEE Line length- 85 km</b>				
<b>1.</b>	<b>Route particulars</b>			
i.	Route Length (km)	95	100	101
ii.	Terrain			
	Hilly	Nil	Nil	Nil
	Plain	100%	100%	100%
<b>2.</b>	<b>Environmental impact</b>			
i.	Name of District(s) through which the line passes	Banaskantha	Banaskantha	Banaskantha
ii.	Town in alignment	No major towns in the alignment. some nearby town/village settlements are Radhanesda, Tadav, Dhima, Tharad Nesda, Mudhetha	No major towns in the alignment. some nearby towns/villages are Radhanesda, Vav Tharad, Dhima, Umedpura Mudhetha	No major towns in the alignment. some nearby towns/villages are Radhanesda, Prattapura, Idhata, Ratanpura, Nesda, Mudhetha
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement (km/ha.)	Nil	Nil	Nil
v.	Type of Forest (RF/PF)& whether part of Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/ Biosphere Reserve/ Wetlands or any other environmentally sensitive area, if any	NA	NA	NA
vi.	Density of Forest	NA	NA	NA
vii.	Type of flora	Mainly Neem ( <i>Azadirachta indica</i> ) Babool ( <i>Acacia nilotica</i> ) and other Thorny Bushes	Mainly Neem ( <i>Azadirachta indica</i> ) Babool ( <i>Acacia nilotica</i> ) and other Thorny Bushes	Mainly Neem ( <i>Azadirachta indica</i> ) Babool ( <i>Acacia nilotica</i> ) and other Thorny Bushes

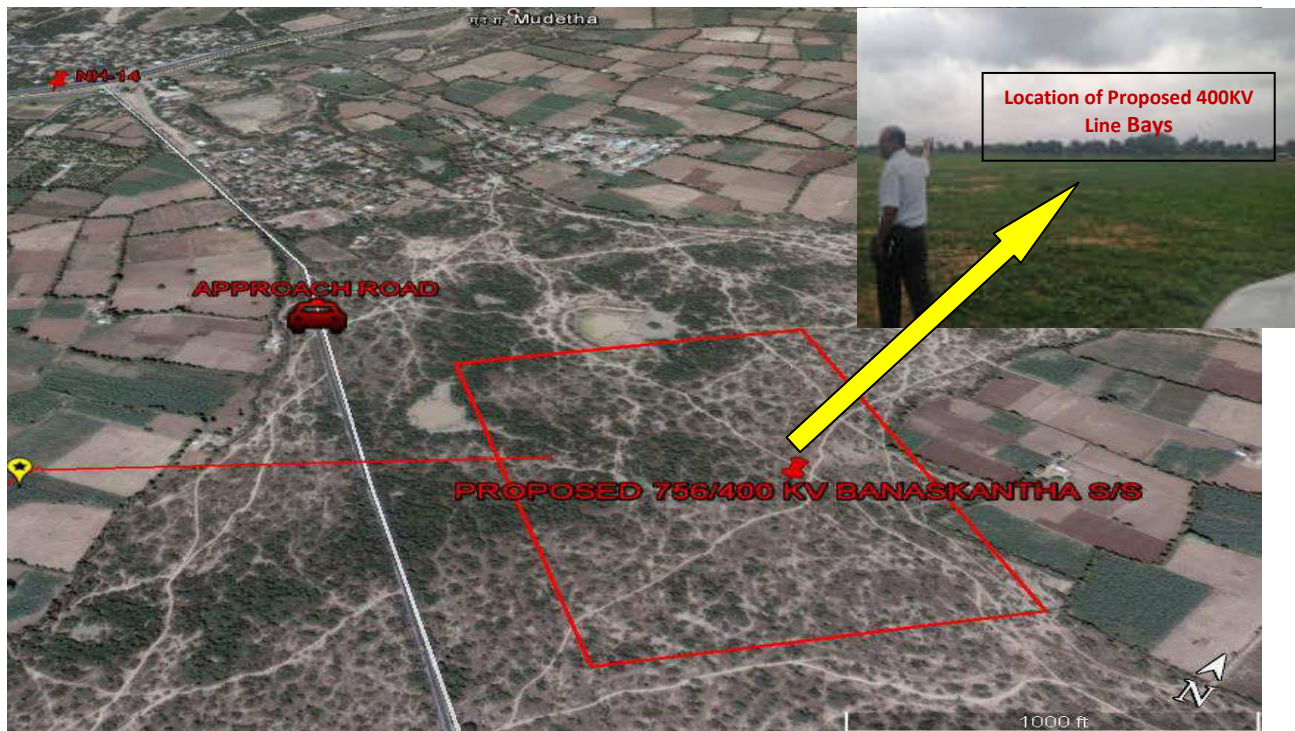
S.N	Description	Alternative-I	Alternative-II	Alternative-III
viii.	Type of fauna	Mostly domestic species like Cow ( <i>Bos indicus</i> ), Buffalo ( <i>Bubalus bubalis</i> ) Goat ( <i>Capra hircus</i> ), Donkey ( <i>Equus asinus</i> ), Camel ( <i>Camelus dromedaries</i> ) etc.	Mostly domestic species like Cow ( <i>Bos indicus</i> ), Buffalo ( <i>Bubalus bubalis</i> ) Goat ( <i>Capra hircus</i> ), Donkey ( <i>Equus asinus</i> ), Camel ( <i>Camelus dromedaries</i> ) etc.	Mostly domestic species like Cow ( <i>Bos indicus</i> ), Buffalo ( <i>Bubalus bubalis</i> ) Goat ( <i>Capra hircus</i> ), Donkey ( <i>Equus asinus</i> ), Camel ( <i>Camelus dromedaries</i> ) etc.
ix.	Endangered species, if any	Nil	Nil	Nil
x.	Historical/cultural Monuments, if any	Nil	Nil	Nil
<b>3.</b>	<b>Compensation Cost:</b>			
i.	Crop (Non Forest)	475.00 lakhs (@ 5 lakhs/km)	500.00 lakhs (@ 5 lakhs/km)	505.00 lakhs (@ 5 lakhs/km)
ii.	Land for Tower Base & RoW Corridor	2594.18 (@ 15 lakhs/acre)	2730.71 (@ 15 lakhs/acre)	2758.02 (@ 15 lakhs/acre)
iii.	Forest (CA+NPV)	NA	NA	NA
<b>4.</b>	<b>Major Crossings:</b>			
i.	Highway(NH/SH)	2(NH) & 3(SH)	2(NH) & 3(SH)	2(NH) & 3(SH)
ii.	Power Line (Nos.)	5	5	5
iii.	Railway Line (Nos.)	1	1	1
iv.	River Crossing (Nos.)	Nil	Nil	Nil
v.	<b>Overall remarks</b>	Shorter in Line length, easy approachability and minimum tree felling and less RoW issues involved	Line length is more and also involves moderate RoW issues and more tree felling as compared to Alt-1	Longest in line and also involve moderate RoW problems as well as more tree feeling

### Reasons for Selection of Final Route

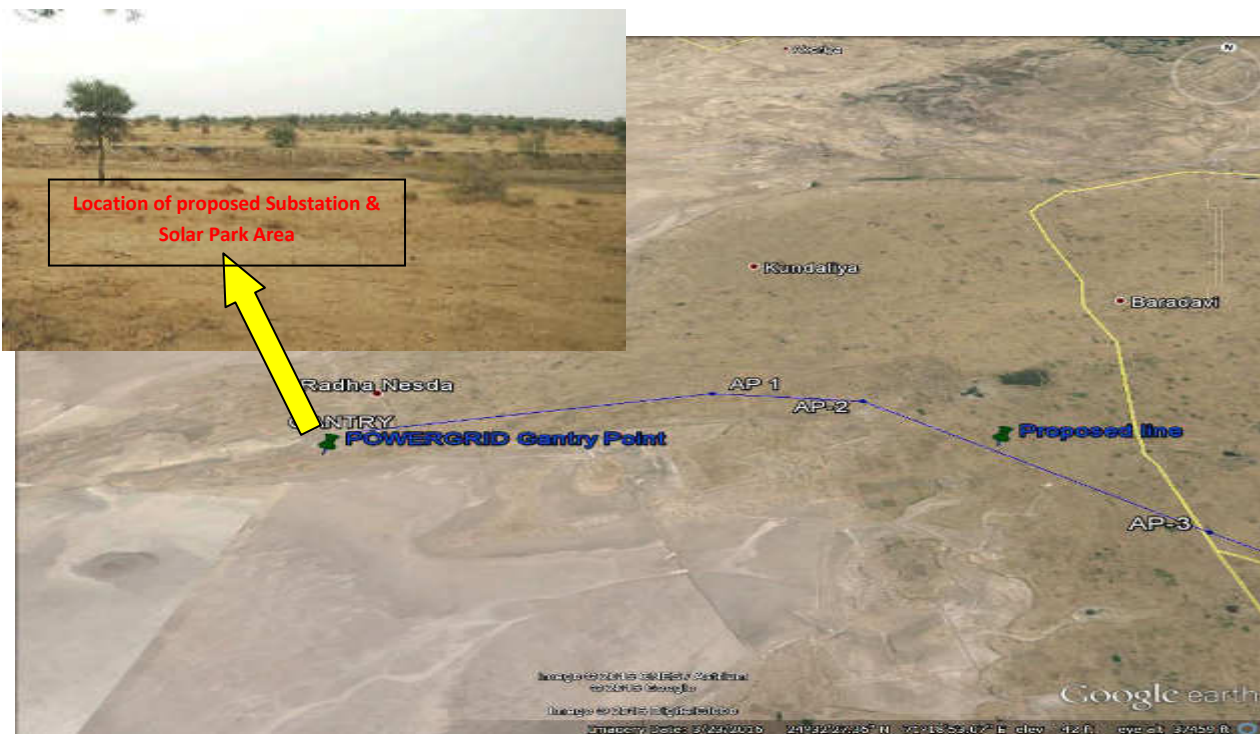
From the above comparison of three (3) different alternatives, it is evident that Alternative- I is the not only shorter in length than Alternative- II & III but also involve less tree felling as it passes mostly through agricultural lands having low density tree cover area. Further, the route of Alternative-I has better accessibility as it is very close to existing roads and therefore lesser degree of RoW issues as well as construction and O&M problems that are anticipated as compared to other two alternatives. Based on above analysis, **Alternative - I** is considered as the most optimized route and recommended for detailed survey.

## ***ANNEXURE - 2***

### ***LOCATION OF SUBSTATIONS***



**765/400/220 kV Banaskantha (PG) Substation**



**PG Gantry location at proposed 400/220/kV Radhanesda (GETCO) Substation**

***ANNEXURE - 3***

***DETAILS OF PUBLIC CONSULTATION***

## **Public Consultation Program Report**

As per the Environment and Social Policy and Procedure (ESPP), a public consultation meeting was organized for upcoming **400kV D/C Radhanesda- Banaskantha Transmission line** associated with transmission system for Ultra Mega Solar Power Plant (700MW) at Banaskantha, Gujarat. The public consultancy program was conducted at Zalodha Village, Diodar Taluka, Banaskantha District on 27/07/2016 to apprise the villagers about this prestigious project.

Zalodha has a common panchayat office for Manpur, Navapura villages, which are in the route of aforesaid transmission line. The program was organized at Village Panchayat Zalodha and prior information was given to the villagers through verbal communication & notice through Panchayat office. The Program was overwhelmingly received by Village public and Big gathering of Village people attended the program.

Zalodha, Manpar & Navapura Village Sarpanch,, Talati of the village and several senior Village dignitaries participated in this program & raised several queries regarding this project and were briefly explained with Project Information by POWERGRID Officials.

Major queries regarding compensation of crop and job opportunity for youth of village were discussed during meeting. Like;

- Q: Benefits to Village People

A: Various People get directly/indirectly benefit from this projects. As per Govt. Laws, POWERGRID under its CSR program, would to propose to Head Office regarding Ambulance or any other work as proposed by Village Panchayat in consultation with the administration subject to guidelines of Govt. under CSR policy and financial limitations.

Also, village people may get temporary employment in the work based on skill/qualification as per requirement through contractor

- Q: Provision for Crop compensation

A: POWERGRID is the Govt. under taking unit, there is a provision to pay crop compensation against damaged crop during construction work as per guidelines given by Government of India.

- Q: Jobs for Village Youth

A: As POWERGRID being a Govt. of India Undertaking, all recruitments would be done through Proper Notification followed by Written Test and Interview. So,

No POWERGRID staff can promise Govt. Job in this Company. But, POWERGRID employed Contractor's may employ local skilled youth.

Finally, the program was concluded cordially after addressing/discussing of several issues of Village Public.



डी. के. शर्मा / D. K. Sharma  
मुख्य प्रबंधक / Chief Manager  
पावरग्रिड / POWERGRID  
बनासकांठा / BANASKANTHA



**Public Consultation Program for upcoming 400kV Radhanesda Banaskantha Transmission line, “under Ultra Mega Solar Transmission System.”**










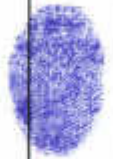





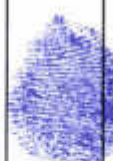
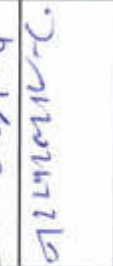

















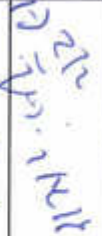



LIST OF PERSONS ATTENDED PUBLIC CONSULTANCY PROGRAM FOR  
400 KV D/C RADHANESDA BANASKANTHA TL

SR. NO	NAME OF PARTICIPANTS	SIGNATURE
1	Subodh Kumar Singh	
2	Manoj Kumar Singh	
3	Mohit Kumar Singh	
4	Manoj Kumar Singh	M.K. - M.
5	Dharmendra Singh	
6	Mahesh Kumar Singh	B. C. Deyani
7	Anand Kumar Singh	
8	Anand Kumar Singh	
9	Prakash Kumar Singh	
10	Ravi Kumar Singh	
11	Prakash Kumar Singh	M. H. S. G.
12	Prakash Kumar Singh	S. T. P.
13	Sudhakar Kumar Singh	
14	Manoj Kumar Singh	K. S. Dubhi
15	Subodh Kumar Singh	
16	Prakash Kumar Singh	J. K. Deyani
17	Prakash Kumar Singh	
18	Prakash Kumar Singh	



19	Հիւանդ տնտեսարանում մեջ	Ե.Բ. Բիտել
20	Յուրմի շահարկում մեջ	Թ.Ա.Շիրազյան
21	Տնայում հուանում մեջ	Կ.Բ. Բարսեղյան
22	Հանգի քյուրում մեջ	Բ.Ե.Վ
23	Հիւանդ տնտեսարանում մեջ	Ռեկուրսի ՎՏԵԲ 
24	Մանու հիւանում մեջ	
25	Քաշի անում մեջ	ՎԱՄԻ ԻՅՈՒՄ ՎԵՐԻՆ
26	Միւսում տնտեսարանում մեջ	
27	Հիւանդ տնտեսարանում մեջ	Բ.Տ.ՆԵՐ
28	Մանու հիւանում մեջ	Բ.Վ. ՄՈԲԻ
29	Մանու հիւանում մեջ	
30	Մանու տնտեսարանում մեջ	Ք.Վ.ՔԵՎԵՅ
31	Մանու հիւանում մեջ	Բ.Բ. Բիտել
32	Վրջ Յուանում մեջ	ՎԱՄԻ ԳԵՄԻՎ ՎԱՄԻ
33	Մանու հիւանում մեջ	ՎԱՄԻ ԳԵՄԻՎ ՎԻՋԷ
34	Տնտեսարանում մեջ	ԿՔ ՔՅԵԼ
35	Մանու հիւանում մեջ	Բ.Բ. Բիտել
36	Քաշի հիւանում մեջ	ՔԵՆՈՒԵՄԻՔԵԼ
37	Մանու հիւանում մեջ	
38	Մեզի անում մեջ	ՎՅՄԻՎ ՎԵՐԻՆ

Handwritten text: "Handwritten" (likely a title or header)

39	Wasser Zinn Zinn	Handwritten	Handwritten
40	Silber Zinn Zinn		
41	Zinn Zinn Zinn		
42	Zinn Zinn Zinn		
43	Zinn Zinn Zinn		
44	Zinn Zinn Zinn		
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Details of Informal Group meetings held along the route of **Radhanesda– Banaskantha 400 kV D/C Transmission line** associated with transmission system for Ultra Mega Solar Power Plant (700MW) at Banaskantha, Gujarat.

<b>Transmission Line</b>	<b>Date of meeting</b>	<b>No. of villagers who attended</b>	<b>Name of Village</b>	<b>Taluka- District- Banaskantha</b>	<b>Remarks</b>
Radhanesda – Banaskantha 400 kV D/c line	20.07.2016	14	Paldi	Deesa	Village Panchayat representatives, farmers, teachers and others attended the meeting. Compensation for Crops/trees, utilization of road paths were main concerns which were clarified during meeting. <b>(Annex some photos of such discussion also)</b>
	20.07.2016	12	Ratanpura	Deesa	
	20.07.2016	15	Soila	Deesa	



POWERGRID's Officials explaining the villagers of **Paldi Village** about the route of the Transmission Line and Compensation particulars paid during construction stage.





Details of Informal Group meetings held along the route of **Radhanesda– Banaskantha 400 kV D/C Transmission line** associated with transmission system for Ultra Mega Solar Power Plant (700MW) at Banaskantha, Gujarat.

<b>Transmission Line</b>	<b>Date of meeting</b>	<b>No. of villagers who attended</b>	<b>Name of Village</b>	<b>Taluka</b> District- Banaskantha	<b>Remarks</b>
Radhanesda(New) – Banaskantha(New) 400 kV D/c line	22.07.2016	20	Nesda- Nava	Deesa	Village Panchayat representatives, farmers, teachers and others attended the meeting. Compensation for Crops/trees, utilization of road paths were main concerns which were clarified during meeting.
	22.07.2016	11	Nesda-Juna	Deesa	
	22.07.2016	15	Ramvas	Deesa	



POWERGRID's Officials explaining the villagers of **Nesda Nava Village** about the route of the Transmission Line and Compensation particulars paid during construction



Details of Informal Group meetings held along the route of **Radhanesda– Banaskantha 400 kV D/C Transmission line** associated with transmission system for Ultra Mega Solar Power Plant (700MW) at Banaskantha, Gujarat.

<b>Transmission Line</b>	<b>Date of meeting</b>	<b>No. of villagers who attended</b>	<b>Name of Village</b>	<b>Taluka District- Banaskantha</b>	<b>Remarks</b>
Radhanesda(New) – Banaskantha(New) 400 kV D/c line	23.07.2016	14	Soni	Deodar	Village Panchayat representatives, farmers, teachers and others attended the meeting. Compensation for Crops/trees, utilization of road paths were main concerns which were clarified during meeting.
	23.07.2016	12	Navapura	Deodar	
	23.07.2016	15	Manpur	Deodar	
	23.07.2016	19	Shergarh	Deodar	



POWERGRID's Officials explaining the villagers of **Soni Village** about the route of the Transmission Line and Compensation particulars paid during construction stage.





***ANNEXURE - 4***

***MOP GUIDELINES FOR PAYMENT OF  
COMPENSATION FOR TRANS LINE***

No.3/7/2015-Trans  
Government of India  
Ministry of Power  
Shram Shakti Bhawan  
Rafi Marg, New Delhi – 110001

Dated, 15<sup>th</sup> October, 2015

To

1. Chief Secretaries/Administrators of all the States/UTs  
(As per list attached)
2. Chairperson, CEA, New Delhi with the request to disseminate the above guidelines to all the stakeholders.
3. CMD, PGCIL, Gurgaon.
4. CEO, POSOCO, New Delhi.
5. Secretary, CERC, New Delhi.
6. CMD of State Power Utilities/SEBs

Subject: Guidelines for payment of compensation towards damages in regard to Right of Way for transmission lines.

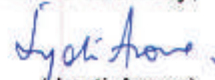
During the Power Ministers Conference held on April 9-10, 2015 at Guwahati with States/UTs, it has, *inter alia*, been decided to constitute a Committee under the chairmanship of Special Secretary, Ministry of Power to analyse the issues related to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this count. Subsequently, this Ministry had constituted a Committee with representatives from various State Governments and others. The Committee held several meetings to obtain the views of State Governments on the issue and submitted its Report along with the recommendations (copy of the Report is at **Annex-1**).

2. The Recommendations made by the Committee are hereby formulated in the form of following guidelines for determining the compensation towards "damages" as stipulated in section 67 and 68 of the Electricity Act, 2003 read with Section 10 and 16 of Indian Telegraph Act, 1885 which will be in addition to the compensation towards normal crop and tree damages. This amount will be payable only for transmission lines supported by a tower base of 66 KV and above, and not for sub-transmission and distribution lines below 66 KV:-

- (i) Compensation @ 85% of land value as determined by District Magistrate or any other authority based on Circle rate/ Guideline value/ Stamp Act rates for tower base area (between four legs) impacted severely due to installation of tower/pylon structure;

- (ii) Compensation towards diminution of land value in the width of Right of Way (RoW) Corridor due to laying of transmission line and imposing certain restriction would be decided by the States as per categorization/type of land in different places of States, subject to a maximum of 15% of land value as determined based on Circle rate/ Guideline value/ Stamp Act rates;
- (iii) In areas where land owner/owners have been offered/ accepted alternate mode of compensation by concerned corporation/ Municipality under Transfer Development Rights (TDR) policy of State, the licensee /Utility shall deposit compensation amount as per (i) & (ii) above with the concerned Corporation/ Municipality/ Local Body or the State Government.
- (iv) For this purpose, the width of RoW corridor shall not be more than that prescribed in the table at **Annex-2** and shall not be less than the width directly below the conductors.
3. Necessary action may kindly be taken accordingly. These guidelines may not only facilitate an early resolution of RoW issues and also facilitate completion of the vital transmission lines through active support of State/ UT administration.
4. All the States/UTs etc. are requested to take suitable decision regarding adoption of the guidelines considering that acquisition of land is a State subject.

Yours faithfully,

  
(Jyoti Arora)

Joint Secretary (Trans.)

Tele: 011-2371 0389

Copy, along with enclosure, forwarded to the following:

1. Secretaries of Government of India (Infrastructure Ministries/Deptt including MoEF - As per attached list)
2. Prime Minister's Office (Kind Attn: Shri Nripendra Mishra, Principal Secretary to PM).
3. Technical Director, NIC, Ministry of Power with the request to host on the website of Ministry of Power.

Copy to PS to Hon'ble MoSP (IC) / Secretary (Power) / AS (BNS) / AS (BPP) / All Joint Secretaries/EA/ All Directors/DSs, Ministry of Power.

***ANNEXURE - 5***

***GOVT OF GUJURAT ORDER DATED 23.06.16  
FOR PAYMENT OF COMPENSATION FOR  
TRANS. LINE***



# → Original Order

પત્ર નં.: પ૨૫-૨૧૭-૨૧૩-૫

મહેસૂલ વિભાગ,

સચિવાલય, ગાંધીનગર

તા. ૨૭ જુન ૨૦૧૫

પ્રતિ,  
સર્વે,  
કલેક્ટરશ્રી,

વિષય:- ટ્રાન્સમીશન લાઇન ના નિર્માણ કાર્યની કાર્યવાહી સમયે  
વજતર નક્કી કરવા બાબત.

શ્રીમાન,

ઉપરોક્ત વિષય પરત્વે તા.૧૫/૧૦/૨૦૧૫ ના કેન્દ્રીય ઉર્જા મંત્રાલય, ભારત સરકારના  
ઠરાવ નં.૩૮૭/૨૦૧૫-ટ્રાન્સ ની ગકલ આ સાથે સમ્મેલ રાખેલ છે. જેની વિગતે તા.૦૯-  
૧૦/૦૪/૨૦૧૫ ના રોજ કેન્દ્રીય ઉર્જા મંત્રાલય, ભારત સરકાર પ્કારા કેબીનેટ પાવર કોન્ફરન્સ  
ચોક્કસ થયેલ, જે અન્વયે થયેલ ઠરાવ મુજબ વીજ લાઇનના નિર્માણ સમયે વજતર બાબતે નિર્ણય  
લેવામાં આવેલ તથા તે અંગે ચોક ગાઠડ લાઇન તૈયાર કરી ઠેશના તમામ સજયોમાં આ ગાઠડ  
લક્ષ્ય મુજબ ખેડૂતોને કે જમીન માલીકોને વજતર ચુકવવા બાબત, ઠરાવ કરેલ છે. જે ધ્યાને લઈ  
આપની કલાએથી નિયમાનુસારની કાર્યવાહી હાથ ધરવા વિનંતી છે.

૨૫/૬/૨૦૧૫  
મહેસૂલ વિભાગ  
ગાંધીનગર

આપનો વિશ્વાસુ

(કે.ડી.ઉમધ્યાલ)

નાયબ સચિવ

મહેસૂલ વિભાગ, ગુજરાત સરકાર

Copy to :- General Managers (Projects-II),  
WR-II, Vadodra.

- For kind information Please.

કે.ડી.ઉમધ્યાલ  
નાયબ સચિવ  
મહેસૂલ વિભાગ, ગુજરાત સરકાર

# → Translation of Gujarati Orders

LETTER NO.PRCH-216-9-13-GH  
Revenue Department  
SACHIVALAYA, GANDHINAGAR

DATED 23<sup>rd</sup> June 2016

To,  
The all Collectors of Gujarat State.

SUB : GUIDELINES FOR COMPENSATION TO BE PAID DURING THE CONSTRUCTION OF TRANSMISSION LINE

Sir,

With reference to the subject matter in line with **Resolution No.3/7/2015** dated **15/10/2015** (copy enclosed) issued by **Ministry of Power, Government of India**. Cabinet Power Conference was held on 10/04/2015 by Ministry of Power, Government of India, the Resolution / guideline has prepared and decided to implement in each states of this Country. According to this guidelines, the compensation shall pay to the concerned farmers / land owners at the time of construction of Transmission Lines. It is to be noted and further necessary action may be taken at your end, please.

Yours faithfully,

S/d ✓  
(K.D. UPADHYAY)  
Dy. Secretary,  
(Govt. of Gujarat)

***ANNEXURE – 6***

***ACTION PLAN FOR SAFEGUARDS***

## **ACTION PLAN FOR SAFEGUARDS**

1. Based on the above Equivalence and Acceptability Assessments, ADB and POWERGRID agreed to implement the following Action Plan for bringing POWERGRID project implementation into full equivalence with SPS policy principles and attaining fully effective implementation of the ESPP and other components of its environmental and social management system.

2. POWERGRID has been updating its ESPP periodically to reflect changes in legal, policy and international best practices. POWERGRID agreed to update the ESPP as needed whenever there are policy and legislative changes related to environment and social safeguards. To ensure equivalence with the SPS, ADB proposes that covenants be included in the loan agreement for all ADB-financed projects to undertake the following equivalence and acceptability actions.

### **A. Equivalence Actions**

3. As described above, ADB and POWERGRID agreed to incorporate the following requirements:

#### **1. Environment**

<b>Action Plan</b>
a) Assess potential cumulative impacts of power transmission projects and include in the environmental assessment process, where appropriate.
b) Provide data for any Government strategic environmental assessments that are relevant to POWERGRID business and operations.
c) Include cost estimates for project-specific environmental management measures into the Environmental Assessment Management Plan (EAMP) <sup>1</sup> (nee. Environment Management Plan(EMP), refer ESPP Appendix- XXX-A).
d) Disclose revisions and updates of the Initial Environmental Assessment Report if any, on the POWERGRID website, and provide relevant environmental information to affected people and other stakeholders, in a timely manner and in a form and language understandable to the affected people.

#### **2. Involuntary Resettlement**

<b>Action Plan</b>
a) Monitor each of the three methods of obtaining land (voluntary donation, negotiated purchase, involuntary acquisition). For negotiated purchase the monitoring is to include an assessment of the transparency of the process, confirmation that the agreed price was paid and confirmation by the seller that they were satisfied with the process. For involuntary acquisition the existing monitoring requirements are maintained.
b) Disclose annual monitoring reports for individual projects in a timely manner and in Hindi and English to the affected people.

#### **3. Indigenous Peoples**

<b>Action Plan</b>
a. Design (i) socio-economic benefit and, (ii) capacity development for Indigenous Peoples so that they are culturally appropriate, and gender and intergenerationally inclusive.

<sup>1</sup> Environment Assessment Management Plan (EAMP)" & "Environment Management Plan (EMP)" are synonyms and hence EAMP should be read as "EMP" in this document.

<b>Action Plan</b>
b. Disclose (i) draft and final Tribal People Development Plan; and (ii) monitoring reports in a timely manner and in a form of language understandable to the affected Indigenous Peoples.
c. Obtain consent from Indigenous Peoples in the case of commercial development of natural resources within tribal lands.

## **B. Acceptability Actions**

4. ADB and POWERGRID agreed to implement the following practices in all projects supported by ADB under POWERGRID's ESPP in lieu of ADB safeguards.

### **1. Environment**

<b>Action Plan</b>
a) Assign environmental specialist(s) (staff or consultants) to each project for project implementation and monitoring during construction.
b) Undertake stakeholder consultations with representation of women.
c) Document disclosure and availability of project information in a timely manner and in a form and languages understandable to affected people.
d) Document where EAMP requirements were not met and status of associated corrective actions in site visit reports by environmental specialists.

### **2. Involuntary Resettlement**

<b>Action Plan</b>
a) Develop procedures on monitoring livelihood impacts of land acquisition.
b) Use recording and tracking systems in the Grievance Redress Mechanism.
c) Conduct meaningful consultation <sup>2</sup> with affected people.
d) Disclose monitoring reports, in a timely manner and in Hindi and English to the affected people.

### **3. Indigenous Peoples**

<b>Action Plan</b>
Provisions for acceptability actions with respect to safeguards of Indigenous Peoples are not applicable at this stage. While ESPP requires that a project affecting Indigenous Peoples prepare and implement a TPDP, there are currently no POWERGRID projects triggering Indigenous Peoples safeguards under implementation that are mature enough to assess.

<sup>2</sup> Meaningful consultation defines as a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

***ANNEXURE - 7***

***SAMPLE CASE OF PAYMENT OF  
COMPENSATION***

# POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

## Southern Region Transmission System - II

Tumkur GAO : Manju Sree, 10th Cross, 80feet Road, Mahalakshmi Nagar, Batawadi, TUMKUR - 572 105.



### NOTICE UNDER INDIAN TELEGRAPH ACT, 1885

Ref. No. Comp /

To, R. S. Basavaraju  
S/o Shantaveerappa  
Yelarampur Village.

No. : B- 1005

Date : 04/10/2012

Dear Sir / Madam

Karatagere TG. Tumkur Dist.

Power Grid Corporation of India Ltd., has been entrusted with the Construction of 400KV Double circuit (Quad) Madhugiri (Tumkur)-Yelahanka Transmission Line by Government of India vide its letter No 11/4/2007-PG dated 3rd December 2009

In exercise for the powers under the Indian Telegraph Act 1885, Part-III sections 10 to 19 conferred under section 164 of the Indian Electricity Act 2003, through the Gazette of India, Extraordinary dated 24th December 2003, notice is hereby given that 400KV Double circuit (Quad) Madhugiri (Tumkur)-Yelahanka Transmission Line will pass through your property, as described below which may cause damage to the standing crops and the trees within the Right-of-Way (ROW) are required to be cut. The crops damaged / trees cut may be taken over by you OR your authorised representative. Reasonable compensation for the crops damaged / trees cut will be paid as per the assessment of the Revenue / Horticultural / Forest Departments Government of Karnataka.

1. Name of the Owner : R. S. Basavaraju
2. Father's / Husband Name : S/o Shantaveerappa
3. Survey No. : 5716
4. Name of the Village : Yelarampur
5. Name of the Mandal / Tahsil : Karatagere
6. Name of the District : TUMKUR.
7. List of Trees to be cut : -

Sl. No.	Location / Section	Tree No.	Name of Tree / Crop	Approx. Age	Girth & Height of the Tree / Area of the Crop	Tree cut / Crop damaged during ( FDN/EREC/ STRGG)
①	13/4 DA+0		Maize	-	53mx50m. Foundation. 2650 Sqm.	

Received the notice :  
Signature

R. S. Basavaraju

For Power Grid Corporation of India Ltd.,

[Signature]  
Signature

Farmer / Authorised Representative  
Date : 04/10/2012

[Signature]

**400 KV QUAD D/C MADHUGIRI - YELAHANKA TRANSMISSION LINE**

Annexure - II

**CROP COMPENSATION STATEMENT - PROPOSAL No. - I**

Sl. NO.	Tower No.	Name and Address of the Land Owner	Name of the work during damage occurred	Notice No.	Survey No.	Name of the crop damaged	Area of damage in Sqm.	Compensation Amount per Sqm. In Rs.	Amount in Rs.	Total compensation to be paid in Rs.
1	AP 13/6	Smt Honnamma W/o Putta Veerappa, Yelampura - Village, Korettagiri - Taluk, Tumkur - Dist	Foundation	1001	37/1B	Maize	1500	3.54	5310.00	5310.00
2	AP 13/6	Smt Umadevi W/o Sivanna, Yelampura - Village, Korettagiri - Taluk, Tumkur - Dist	Foundation (Approach)	1002	41/3	Ragi	950	2.13	2023.50	2024.00
3	AP 13/4	R.S. Basava Raju S/o Shanthaveerappa, Yelampura - Village, Korettagiri - Taluk, Tumkur - Dist	Foundation	1005	57/6	Maize	2650	3.54	9381.00	9381.00
									Total	<b>16715.00</b>

*(Signature)*





केंद्र पर जारी होने पर  
 VALID ONLY IF PRINTED  
 बैंक खाते के लिए  
 VALID FOR THREE MONTHS ONLY  
**स्टेट बैंक ऑफ़ मयूर**  
**State Bank of Mysore**  
 बैंक दस्तावेज़  
**COMMAND DRAFT**  
 ₹ 90,000 / 90,000/- (नब्बे हजार रुपये के बराबर) का दस्तावेज़ है।  
 WITHAMOUNT FOR 25.00% & 40% PAYMENT UNLESS SPECIFIED OTHERWISE.

**A/c payer**  
 बैंक खाते का नाम  
 बैंक खाते का नंबर  
 बैंक खाते का प्रकार

प्राप्त करने वाले का नाम  
 प्राप्त करने वाले का पता  
 प्राप्त करने वाले का पता

रकम  
 ₹ 90,000/- (नब्बे हजार रुपये के बराबर)  
 AMOUNT IN WORDS (IN FIGURES)

प्राप्त करने वाले का हस्ताक्षर  
 VALUE RECEIVED  
**Prabha**  
 शाखा प्रबन्धक / BRANCH MANAGER  
 शाखा कार्यालय / S.B. NO.

स्टेट बैंक ऑफ़ मयूर  
 STATE BANK OF MYSORE  
 शाखा कार्यालय / BRANCH OFFICE  
 बैंक खाते का नंबर / A.C. NO.  
 शाखा प्रबन्धक / BRANCH MANAGER  
 शाखा कार्यालय / S.B. NO.

\* 8 2 2 6 6 6 \* 0 0 0 0 0 6 0 0 0 : 7 0 0 0 0 3 0 \* 1 6 R 2 0 0 3 6 7 7 9 2

## RECEIPT

I hereby acknowledge the receipt of the crop compensation amount towards damage of my crop, while executing construction works of 400kV Madhugiri - Yelahanka D/C (QUAD) Transmission Line, as per the details mentioned below:

1. Location Number: 1314
2. Village Name: Yelerampur
3. Notice Number: B-1-1005
4. Name of Landowner: R.S. Basavaraj
5. Amount: Rs. 9381/-
6. DD No: 822666
7. DD Drawn Date: 17/11/2012
8. Construction activity: FOUNDATION / TOWER-ERECTION / STRINGING
9. Date of Receipt of DD: 24/11/2012



(Signature of Witness)

Name: S. NARAYANA

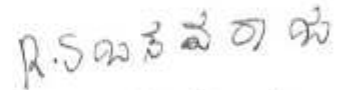
Address: S/o Late RV Sivarudraiah  
Yelerampura.

(Signature of POWERGRID Representative)

Name: Ajit N. Kemur

Emp No: 30461

Designation: Jr. Engr.



(Signature of Landowner)

Name: R.S. Basavaraj

Address: S/o Shantavempu

Yelerampur

Karstageri Tal.

Tumkur.